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AUTHOR Abramson, Theodore; And Others
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ABSTRACT

Activities of and outcomes resulting from the State Project to Implement Career Education (SPICE) in New York City schools for the first year and a half are reported in this summative evaluation. Findings (much of which are statistical data) discussed deal almost exclusively with the elementary-junior high program, one of two autonomous programs developed, the second program being for the secondary school level. In general, data presented, gathered by interview and questionnaire, indicate positive attitudes toward SPICE and successful implementation of career education in classrooms. Project components discussed include the K-9 component, cluster approach, workshops, project management, secondary program, and the career advisory committee. The elementary school component is discussed in terms of workshops, survey, and teacher projects. The junior high school component contains descriptions of the impact projects in Staten Island, Bronx, and Brooklyn, a comparison of the three junior high school programs, teacher activities, and junior high school survey. Also discussed in the report are the guidance component, district office reports, time management, and the secondary school component. Recommendations are made based on the data. Appendixes contain workshop objectives, teacher questionnaire SPICE program, teacher project summary sheet, time management forms, and basic methodology in introducing and establishing career education in a school. (TA)

Research Report No. 73-4

EVALUATION OF THE NEW YORK CITY
STATE PROGRAM TO IMPLEMENT CAREER EDUCATION

January, 1972-June, 1973

Theodore Abramson
Mary Schaefer
Cheryl Fuss
Cynthia BruckmanU.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
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Lee Cohen, Director
Institute for Research and Development
in Occupational Education
Office of Teacher Education
City University of New York

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INTRODUCTION

This summative evaluation report describes some activities of and outcomes resulting from the first year-and-a-half of the effort to incorporate career education into the New York City schools. The role, function, and outcome of the formative evaluation effort have been described elsewhere¹ and will not be repeated here. The first section deals with the background and early history of the project and is followed by information describing the components of the project. The summary and recommendations are the last two sections of the report.

BACKGROUND AND EARLY HISTORY

In January of 1972 the State Education Department (SED) received approval from the United States Office of Education (USOE) of its proposal for the design, development, and implementation of a career education program in New York City. The contract between USOE and SED for \$581,380 called for the separation of the project into two components: (1) a K - 9 component to be located in a community school district in New York City and (2) a secondary school component that involved the Fashion Institute of Technology (FIT) in Manhattan with random senior high schools throughout the city. This arrangement was necessary because the high schools are controlled by the central Board of Education but the elementary and junior high

¹State Project to Implement Career Education, Interim Reports 1 and 2. IRDOE, CUNY, 1411 Broadway, New York, N.Y. 10018.

schools are controlled by 31 independent district school boards. The contract further stipulated that the program include: inservice education, curriculum development, guidance redirection, and community-business involvement.

The proposal that had been approved by the USOE outlined the demographic characteristics of District 16 in Brooklyn as having the most desirable characteristics for the project, although District 16 itself had neither been contacted nor finally selected as the district for the K - 9 component of the project.

The K - 9 Component. On February 8th, staff from the Occupational Education Offices of the State Education Department met with the superintendent, members of his staff and members of the Community School Board of District 16 to discuss the district's participation in the development of a career education model. As a result of the meeting, according to the State Project Manager, it was agreed pending approval of a public meeting of the Board, that:

1. District 16 would have maximum freedom to develop a career education program in accordance with the general objectives set forth in Position Paper No. 11, OCCUPATIONAL EDUCATION.
2. The program would have two separate components; the first a community school district component possibly involving also Bushwick High School, which District 16 expressed interest in having as part of its project; the second a secondary/post-secondary

component involving representative high schools in New York City with the Fashion Institute of Technology.

3. The project would be coordinated by the career education office which was then being established at the New York City Board of Education headquarters, the person in charge reporting directly to the Chancellor.
4. Money per se could not be allocated directly to the district from the State Education Department but that the flow would be expedited through the career offices.

The ultimate decision by the district was postponed until June 15, 1972 when the SED representatives and the Project Manager were informed that the proposal would be approved at a public meeting to be held on June 19, 1972 pending the following stipulations:

1. The development and implementation of the program will be performed by the district in accordance with the needs of the children and the community. The district does not feel it is bound by the suggested program that was sent to Dr. Sidney Marland, U. S. Commissioner of Education.
2. While District 16 recognizes that certain budgetary functions must be performed by units of Central Headquarters, it feels that these units should be involved with the district only on a consultant basis. The Central Headquarters staff should not be involved in the evaluation or monitoring of the district's Career Education Program.

3. It has been stated that this program is a model for the State of New York. We, therefore, feel that the officials of District 16 should deal directly with the State Education Department. The staff at Central Headquarters has not been responsive to the development of creative and innovative programs in the district. In addition they have had very little success in developing programs that are effective for the children of District 16.

The refusal of District 16 to involve the Central Board's newly established Office of Career Education in the programmatic development of the project led the Assistant Commissioner, at the suggestion of the Project Manager, to sever the K - 9 component from District 16.

Cluster Approach. During the summer and fall, 1972, a series of meetings was held between the Project Manager, his Director of Planning, and the Institute for Research and Development in Occupational Education (IRDOE). It was out of these meetings that the cluster approach to the project was formalized. The project would be located in three community school districts selected on a demographic and geographic basis so as to constitute a microcosm of New York City. Within each community school district, there would be an involvement of three elementary schools and one junior high school. Within the pilot schools one teacher from each elementary grade, K - 6, would be selected on the basis of interest and enthusiasm; in the junior high schools, departmental representatives would be chosen based on the same interest criteria.

In late August, feelers were put out to Districts 11 in the Bronx and 31 on Staten Island. Acceptance was rapid in coming. Arrangements with the third community district, the most underprivileged of the three, were being finalized when District 16 approached the Project Manager and requested re-involvement with the career project on any reasonable terms. It was thus that District 16 was reinstated as part of the elementary - junior high school career component.

The Project Manager, with the assistance of IRDOE, developed a diagrammatic representation of the State Program to Implement Career Education (SPICE) program (see Figure 1).

Activities during August, September, and October involved the shifting and restructuring of the program, the finding and hiring of a Project Director, and the definition of the role of the FIT secondary component (see Secondary Program, pp. 9-10). In addition, the cluster concept of the utilization of a junior high school and three of its "feeder" grade schools was adopted. The concept was extended to include the contiguous high school in each of the three boroughs. Direct contacts were made with the three school districts and the cluster concept became a reality (see Figure 2).

Workshops. In conferences with IRDOE during the month of November, it was decided that the contract approach was probably the most efficient and expeditious manner to move the project into functioning career education activities. The projected costs of the contracts were below that needed to hire staff to run the several dozen workshops as well as prepare materials and pay consultants. In addition, it was felt that the needed expertise had to be procured with the anticipation that the SPICE staff would gain sufficient information and knowhow to assume a similar training role the following year.

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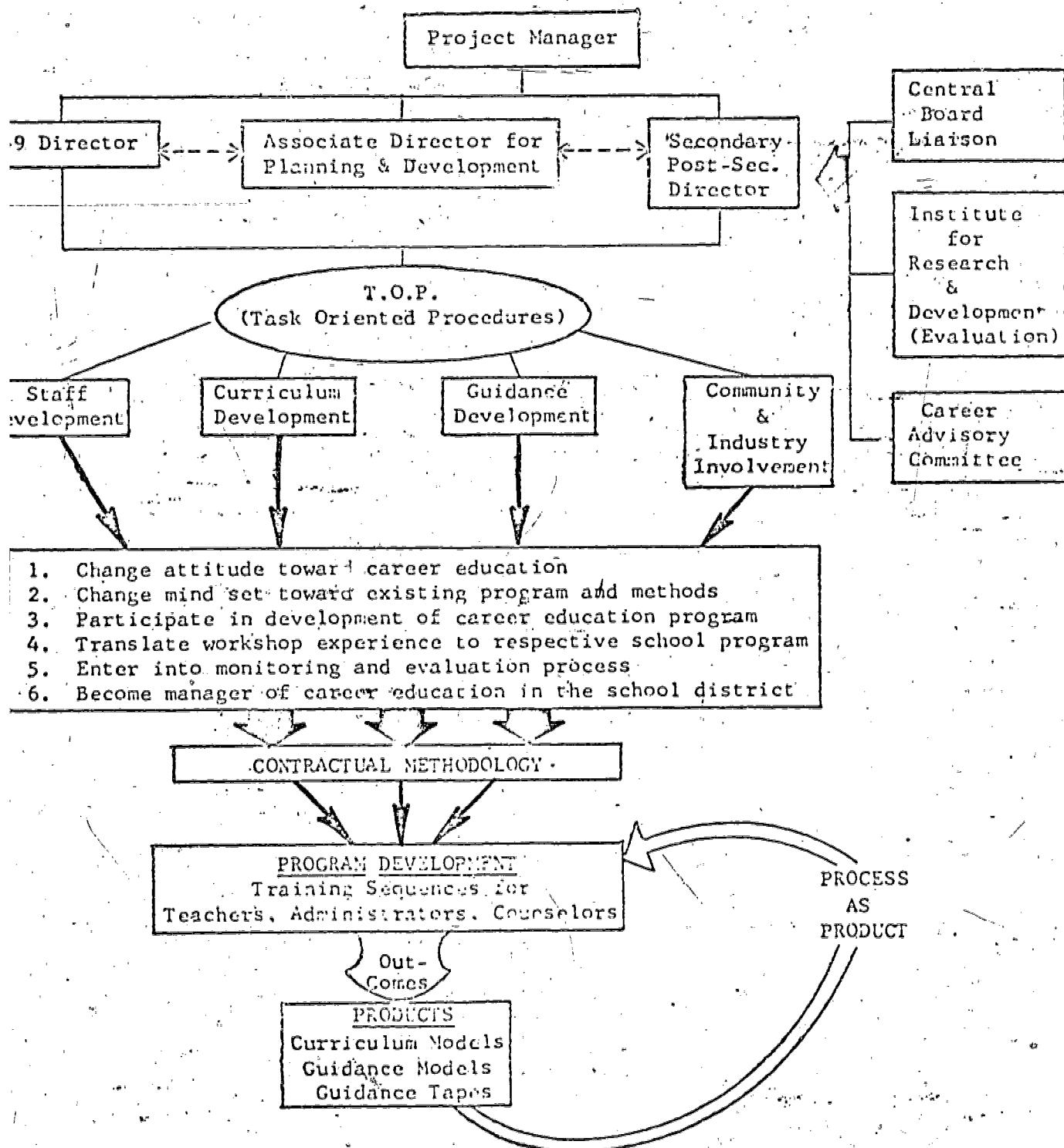


FIG. 1. Diagram of SPICE program (1972-1973) as conceptualized by SPICE and IRDOE, Summer, 1972.

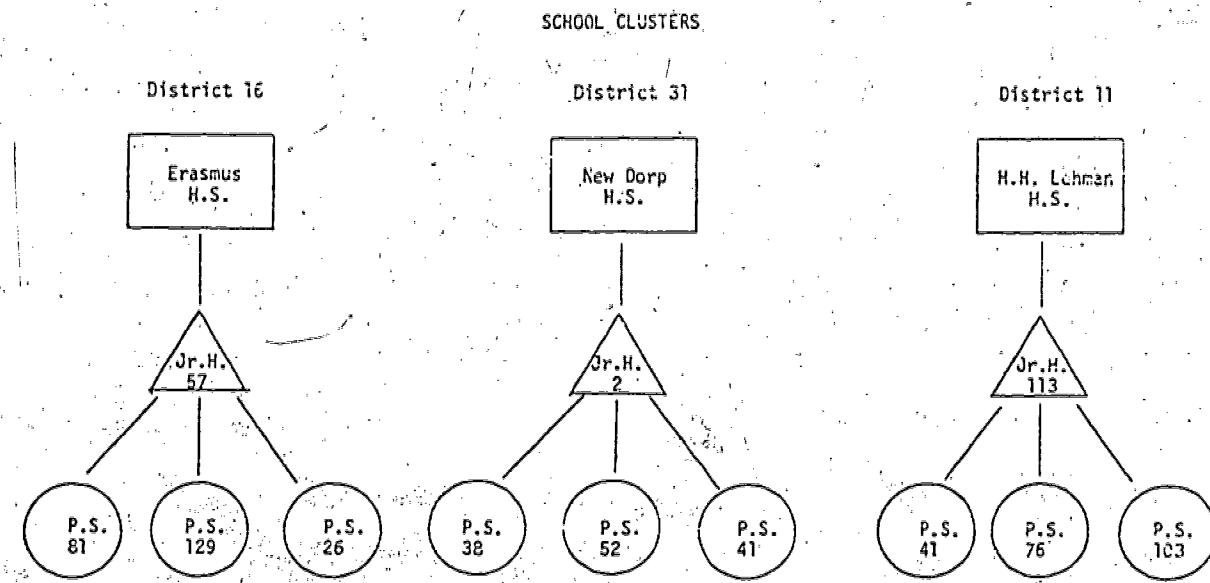


FIG. 2. School clusters representing feeder schools in the three districts chosen by SPICE.

Broad outlines of a K - 6 program which involved one teacher from each grade level at each public school in each cluster, as well as the inclusion of a guidance group (one from each school) were developed. A set of overall general objectives (see Figure 1) were established for the in-service training of these individuals and several established educational organizations were requested to develop workshop programs that could respond to the objectives set forth.

The Institute for Educational Development (IED) submitted a proposal which was accepted after being reviewed and amended. About the middle of December, a tentative program was agreed upon. The program was to include an internal evaluation and reviewing mechanism designed to feed back and

correct any of the planned workshops. January 22, 1973 was set as the target date for the first workshop series.

In an attempt to have an early interface of guidance activities and teacher training activities, the director of the City University of New York (CUNY) Guidance Laboratory was asked to prepare a program of guidance career education workshops for SPICE consideration. The decision to consider this source came partly from its convenient proximity but mostly from the work in career education its director had been doing in Florida, North Carolina, and Ohio. It was anticipated that a program could be developed and approved with the target date for the first series of guidance workshops to start the week of February 5th.

Project Management. It is essential to note that throughout all that transpired in the previous months, SPICE had no office (or even desk) to use as a base of operations. Most meetings were conducted at the IRDOE offices with an occasional special meeting at FIT. It was not until late December that facilities and telephones were installed in the recently acquired SPICE offices. SPICE became operational by January. The degree to which the lack of an office, (desks, telephones, secretary, flow of correspondence, adequate meeting space, collection of materials, etc.) hampered the operational development of SPICE cannot, in fact, be measured. However, the degree to which functioning and events accelerated once a "home" was found is apparent from the rest of the activities discussed in this report.

A project director was chosen early in September. Difficulties in finding a director were related to a great extent to the timing of the search. Most experienced candidates planning to change jobs had long since

made their moves and the field of choice was indeed light. A project director was hired and charged with the:

- (a) assisting and searching for appropriate school districts to implement the developing State program in career education, and
- (b) searching and hiring of an operational staff that related to the task oriented program of the career education project.

The project director's tasks were later to include supervision of the K - 9 component. By late November staff lines had still not been filled. A decision to utilize the Board of Education liaison as an active staff assigned to the junior high school proved to be a very positive shift. The liaison immediately moved to contact junior high school principals and staff and with the assistance of the planning staff quickly moved into a highly active program. The staff attended the October career education workshops at the American Personnel and Guidance Association Convention and the December USOE meeting in career education. As task area needs became more and more delineated, the project director began to intensify his search for a curriculum facilitator, guidance facilitator, and community facilitator.

Secondary Program

Because of the unique characteristics of New York City's educational structure (the high schools being interdistrict and under the Central Board), the secondary component of the project was to be separate from the K - 9 component and was to involve FIT in Manhattan with random senior high schools throughout the city.

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During May and June of 1972 the FIT career team had met with the staff at Erasmus High School, had received acceptance, and had commenced the formation of school career teams. FIT had initially met with resistance from several high schools as a result of the original identification of the secondary component with underprivileged schools. The acceptance of the FIT career team by Erasmus was considered a turning point in the selection of future senior high schools. In early September, after Districts 11 and 31 had accepted involvement in the elementary program, FIT approached Herbert Lehman and New Dorp High Schools in those districts. These two high schools became part of the secondary program, thus completing selection of pilot schools for the SPICE project.

In a series of meetings in September attended by SPICE staff and the director of the secondary program, it was decided to maintain the K - 9 and secondary components as separate entities for the following reasons:

1. The FIT organization felt they were too far along in their own plans and operational activities to redirect their program.
2. The model developing on the secondary program was keyed to the FIT specific expertise and was unable at that time to shift into a wide multi-career secondary approach.
3. Expenditures and other commitments that had been agreed to made any change in overall budget structure quite difficult.

Formal notification was made to the Board of Education that the State would proceed with the program on a direct basis with primary fiduciary control at FIT.

The main thrust of the meetings during October involved settling relationships between the secondary program run by FIT and that of the K - 9 program. It was now fully recognized that the FIT program was to be totally autonomous and in meetings with school districts was only alluded to peripherally.

Career Advisory Committee. The months of January and February 1972 were spent screening candidates for the project's Career Advisory Committee. The New York City Economic Development Council through its Vice President for Educational Affairs, and the Business-Education Coordinator of the State Education Department suggested a number of possible candidates for the Committee. The Board, according to the Project Manager, because of the unique nature of career education, contained elements of vested interest.

During the next three months, formation of the committee was completed, a chairman was elected, and three meetings were held. The Committee spent its time on discussions of policy, project site, and philosophy of career education rather than assisting the Project Manager in the conceptualization of the project through the "... developmental process for which it was formed." The Committee had accomplished very little of its purpose by the end of the Spring 1972 school semester.

In early September, task oriented subcommittees were formed as a result of a survey administered during the spring. The committee met once during October and once in December. At the latter meeting some committee members objected to being informed of project decisions without first being asked to "advise." There were no other meetings of the committee proper although a number of committee members appear to have made informal contributions to the project through their subcommittee assignments.

ELEMENTARY SCHOOL COMPONENT

IED Workshops. The IED workshops provided the only training for the elementary school teachers who were in the SPICE program. The workshops are therefore discussed in this section even though there were also IED workshops for the junior high school teachers. The sessions were conducted separately for the teachers in grades K-2, 3-4, and 5-6 and had as their main objectives helping the school staff to: (1) understand and appreciate the need for career education, (2) create their own materials, and (3) adapt existing curriculum materials. Teachers were to be given an orientation and training program in career education theory, content, and practice. The proposal, on file at the SPICE office, included a lengthy and detailed list of objectives for each workshop. A brief list of objectives is included in Appendix A.

Part of the IED proposal called for teacher participation in planning, with continual revision of objectives and procedures based on teacher reactions and the reactions of the visiting lecturers who were conducting the workshops. Following each workshop, an IED staff member met with a sample group of teachers while another met with the visiting lecturers. Approximately one week after each workshop a questionnaire was sent to the participating teachers asking for their reactions to the workshops and their suggestions for procedures and content of future workshops. Visiting lecturers made several recommendations concerning the physical accommodations of the room used for workshops, the use of "facilitators," and the actual format of the workshop program. Most of the recommendations were acted upon. In addition, the teachers suggested that a practicing career

education classroom teacher be utilized as a workshop leader. One classroom teacher was recruited for the fourth junior high school workshop. While his presentation was not as well received as those of the other workshop lecturers, he did relate more to the practicalities of actual classroom life by sharing his experiences with the junior high school teachers.

It should be noted that the original proposal called, in a rather vague manner, for a separate in-service training for SPICE facilitators. This was never carried out. Facilitators attended the in-service workshops for teachers and guidance personnel. This was the only training that SPICE facilitators actually received.

An IED interviewer visited two schools to acquire further knowledge of teacher reactions. Her report was submitted late in March. It was quite similar to the report submitted by the evaluator's team in May, although, in the interim, a great deal of the initial confusion about the roles of the various personnel and the basic objectives of the SPICE effort had been cleared up.

Fifty-six elementary school teachers attended the IED workshops in career education. Sixteen (28.5%) were interviewed by the evaluators at their schools. Whenever possible, the interviewer asked to visit the classroom to gain a first-hand impression as to how the career education program was actually being implemented.

Teachers were asked to discuss their views of the IED workshops, materials provided both by IED and SPICE, and the in-school services provided by the SPICE staff. They were questioned about their own attempts at introducing career education into their classes. Finally, they were asked

to discuss their feelings about the administrative problems of integrating career education into the curriculum in their schools. The interview results related to the workshops are described below. The interview data related to the other issues are incorporated into the teacher questionnaire and project summary sections (pp. 18-27, 28-32, respectively).

Each teacher interviewed was extremely positive toward career education. Many were negative or neutral at first, but after attending the workshops and trying career education in the classroom, all but one felt that a career education program, besides having intrinsic merit, was an excellent motivating vehicle for teaching the basic skills in the elementary school curriculum. The one teacher who did not try career education did not do so because her class was far below grade level in reading, and she felt that taking time away from reading exercises for "something else" would be detrimental to her class.

All of the teachers interviewed felt that there should have been some information sent to them prior to their attendance at the workshops so that they could maximally benefit from the sessions. The teachers felt that the principals had not been aware of the objectives of the program and did not always choose the teachers who would be the potential leaders. In addition, the teachers were not aware that they were supposed to have been the "creators" in a pilot project. Many were confused and/or rejecting of this role even toward the end of the term.

The teachers felt that the workshops were quite successful in "selling" career education. However, many teachers felt that it was oversold, that too much time was spent on repetition of theory and philosophy. Most teachers agreed that more time should have been spent on attitude development,

construction of units, and development of methods and materials. The workshops, however, were informative, and stimulated most teachers to want to know more about career education. Many teachers indicated that they began to examine their own knowledge and values about the world of work. Most of the teachers felt that the use of videotape was valuable but they would like to see more chance for interaction between teachers at workshops.

The teachers by and large felt that they developed professionally and broadened their viewpoints as a result of the workshops. Some appreciated the opportunity to gain a new purpose for teaching, as well as to sharpen their own concepts of unit planning and the development of skills.

Materials were described as adequate. The teachers were given resource guides, lists of films, lesson plans, filmstrips, and addresses for writing away for free "goodies." Lesson plans were adaptable. Some teachers said they used everything they were given, some said they used nothing. Many would have liked to have been given materials for immediate actual classroom use.

In addition to the above procedures, elementary school teachers were given pre- and post-tests by IED concerning their attitudes toward career education. The teachers were asked: "If you are a classroom teacher, do you agree that courses in your subject area(s) or grade would be more meaningful and relevant if focused around career objectives?" Table 1 gives a breakdown, by grade, of responses to the above question. Clearly, there was a large increase in teachers responding "agree" after having completed the workshops.

Teachers were also questioned about their utilization of resource people in career education, both as classroom visitors and in field trips.

TABLE 1
Change in Teachers' Feelings About
the Use of
Career Objectives in the Courses They Teach.

Grade	% Agree (Before / After)	% No Opinion (Before / After)	% Disagree (Before / After)
K-2	51 / 94	40 / 6	9 / 0
3-4	55 / 92	45 / 8	--
5-6	73 / 92	27 / 8	--

A large increase in use of resource people was indicated after completion of workshops. Table 2 summarizes these data.

TABLE 2
Change in Teachers' Use of Resource People
in Career Education Activities

A. Number of workers invited to class to discuss their jobs.

Grade	No Visitors (Before / After)	1-2 Visitors (Before / After)	3-4 Visitors (Before / After)	More than 4 Visitors (Before / After)
K-2	57 / 33	29 / 29	7 / 24	7 / 14
3-4	88 / 64	12 / 7	0 / 22	0 / 7
5-6	87 / 58	13 / 17	0 / 17	0 / 18

TABLE 2 -continued-

B. Number of classroom trips to observe workers at work.

Grade	No Visits (Before/ After)	1-2 Visits (Before/ After)	3-4 Visits (Before/ After)	More than 4 Visits (Before/ After)
K-2	61/ 30	27/ 40	12/ 20	0/ 10
3-4	83/ 57	17/ 21	0/ 22	--
5-6	81/ 25	6/ 58	13/ 30	--

The results of the IED testing in conjunction with the IED and evaluation team's interview data strongly indicate a positive attitude change toward the role of career education in the elementary school curriculum, as well as a greater utilization of resource people both at their job sites and as visitors to the school. Further evidence that the IED effort was generally viewed as successful by the participating teachers can be inferred from the teachers' enthusiasm for continuation of the workshops into the summer and the following year.

The evaluator's also interviewed seven junior high school teachers at the last set of workshops. The teachers found the workshops to be both enjoyable and informative. Some teachers enjoyed the opportunity to learn about what was happening in education around the nation. Each teacher was definitely in favor of career education, and found the workshops to be a strong motivating factor. Some mentioned that they liked the audio-visual, yet varied, approach and enjoyed the exchange of ideas and extra stimulation. It would thus appear that the IED workshops were successful at this level, too.

Elementary School Survey. The evaluators prepared a 48 item questionnaire (see Appendix B) for administration to the teachers who participated in the SPICE program. In order to ascertain the teacher's response to four major aspects of the SPICE program, 44 of the questions were grouped into four categories relating to: (1) Workshops (questions 1 - 11); (2) SPICE staff (questions 13 - 28); (3) Career education materials (questions 30 - 38); and (4) Career education classes (questions 40 - 47). Table 3 summarizes these data and groups the responses of teachers by the workshop they attended. Teachers who taught K through 2nd grade attended workshop 1, those who taught grades 3 and 4 attended workshop 2 and those who taught grades 5 and 6 attended workshop 3.

In arriving at the percentage of teachers who responded positively and negatively to the 4 categories of questions, a total score for each of the 4 sections was computed for each teacher. This total numerical score was the sum of the responses to each question in that section with responses to each item rated on a scale from 1 (disagree strongly) to 5 (agree strongly). A maximum possible score was calculated for each section by multiplying by 5 the number of items in that section. A positive response was defined as a score that was 70% or more of the maximum score and a negative response was defined as a score that was 30% or less of this maximum score.

Overall, the data in Table 3 indicated that teachers in all 3 workshops had a positive attitude towards the workshops and the SPICE staff, and did not have a negative attitude towards any of the 4 major aspects of the program. Over 50% (10 out of 19) of the participants in Workshop 1 responded positively to the workshops while only 38% of those in Workshop 2 responded similarly. More Workshop 2 participants (46%) responded posi-

TABLE 3

Summary of Positive and Negative Responses to Questions Relating to
 Workshops, SPICE Staff, Career Education Materials
 and a Career Education Program by Workshops
 for Elementary Teachers in the SPICE Program

Type of Response	Total N	Questions Relating to							
		Workshops		SPICE Staff		Career Ed. Materials		Career Ed. Classes	
		N	%	N	%	N	%	N	%
Workshop 1 (K thru 2)	19								
Positive (scoring 75% or more)		10	53	7	37	0	0	0	0
Negative (scoring 30% or less)		0	0	0	0	0	0	0	1
Workshop 2 (grades 3 & 4)	13								
Positive (scoring 75% or more)		5	38	6	46	0	0	0	0
Negative (scoring 30% or less)		0	0	0	0	1	8	0	0
Workshop 3 (grades 5 & 6)	11								
Positive (scoring 75% or more)		5	45	4	36	0	0	1	9
Negative (scoring 30% or less)		0	0	0	0	0	0	0	0

tively to the SPICE staff than did members of either Workshop 1 (37%) or Workshop 3 (36%). In addition, most of the teachers in all 3 workshops responded neither positively nor negatively towards career education materials and career education classes. These findings, in conjunction with the interview data, suggests that more attention should be devoted to these areas in the future.

The remaining 4 questions on the teacher questionnaire, items 12, 29, 39; and 48, were also concerned with the four major aspects of the SPICE program. Each question was concerned with ways to improve one of these aspects of the program. Teachers were asked to select from a list of from 6 to 10 items those items that they felt would improve a particular phase of the program. These responses were then to be rank ordered in terms of their importance. The data were analyzed by grade levels for each of these questions. In addition, question 29 was analyzed by school districts in order to gain insight into the functioning of the SPICE staff within the 3 districts participating in the program.

The analysis of the information from questions 12, 29, 39, and 48 consisted of determining the number of times an item received a rank of 1, 2 or 3 from the teachers. It was assumed that ranking an item 1, 2 or 3 meant that the item had a very high priority for that particular teacher. Thus, the data are presented in terms of the percentage of teachers who ranked each item's importance as a 1, 2 or 3.

Table 4 summarizes the data in question 12 which related to ways of improving the workshops.

At the elementary school level, there were three items, C, D, and J which received a rank of 1, 2 or 3 from 30% or more of the teachers at each

TABLE 4

Question 12: The Workshops Would Be Better If:

% Ranking Each Item as 1, 2 or 3 in Importance, by Grade Level

Grade Levels	A	B	C	D	E	F	G	H	I	J
K - 2	26%	11%	42%	32%	11%	26%	26%	16%	11%	47%
3 & 4	15%	0%	69%	62%	0%	0%	62%	8%	0%	77%
5 & 6	55%	27%	73%	55%	36%	27%	45%	18%	27%	64%

KEY:

- A = If people from community ran workshops.
- B = Better attendance by all Career Ed. teachers.
- C = New materials were presented and discussed.
- D = Teachers could share ideas and problems.
- E = Workshops were held more frequently.
- F = Teachers presented lesson plans.
- G = More continuity from one workshop to the next.
- H = One person or one group ran all workshops.
- I = More time was provided for questioning speakers.
- J = Workshops related career ed. to N.Y.C. curriculum.

workshop. The two items which were ranked 1, 2 or 3 by the greatest percentage of teachers indicated the need for the presentation and discussion of new materials and the need for relating career education to the New York City curriculum. The third item which was also ranked 1, 2 or 3 by more than 30% of the teachers was that the workshops would be better if teachers could share ideas and problems.

The need for more continuity from one workshop to another (item G) was ranked in the top three in importance by more than 30% of the teachers in grades 3 through 6 and by just under 30% of the teachers in grades K through

An interesting result can be seen in the responses to Item A, the need for people from the community to run workshops. More than 50% of the teachers in grades 5 and 6 felt that this item was among the top three in importance, while less than 30% of the K - 2 and the grades 3 and 4 teachers felt that this would be an important improvement to the workshops. A possible explanation for these results is that perhaps lessons in career education for the K - 2 and grades 3 and 4 students constitute less of a departure from the kind of activity which occurs daily in the classroom than for the students in grades 5 and 6. The teachers in grades 5 and 6 may be more structured in their classes in terms of a curriculum plan for reading, mathematics, etc. and may feel less competent to deal with career education on their own. Thus, having people from the community run workshops might be perceived as more important by teachers in grades 5 and 6 because of their need to have more detailed information about specific careers.

Table 5 summarizes the data from question 29 which relates to ways that the SPICE staff could be of greater help. The data were analyzed by grade levels.

Having SPICE staff spend more time at the schools, having SPICE staff have more material available for teacher use and having SPICE staff help to set up contacts with career people in the community were all ranked as 1, 2 or 3 in importance by more than 30% of the teachers at all grade levels. Of these three items, helping to set up contacts with career people in the community (item F) was ranked 1, 2 or 3 by more than 50% of the teachers at all grade levels.

TABLE 5

Question 29: The SPICE Staff Would be of Greater Help If:

% Ranking Each Item as 1, 2 or 3 in Importance, by Grade Level

Grade Levels	A	B	C	D	E	F
K - 2	32%	11%	21%	37%	11%	68%
3 & 4	54%	38%	54%	69%	23%	69%
5 & 6	64%	45%	73%	64%	55%	55%

KEY:

- A = They spent more time at the schools.
- B = They had more information about Career Education.
- C = They did more training.
- D = They had more material available for teacher use.
- E = They were more versatile in ideas for lesson plans.
- F = They helped to set up contacts with career people in the community.

The need for SPICE staff to have more information about career education and to do more training were perceived as being in the top three in importance by more than 30% of the teachers in grades 3 - 6 only. Item E, having SPICE staff be more versatile in ideas for lesson plans, was ranked as 1, 2 or 3 in importance by more than 50% of the teachers in grades 5 and 6, but by less than 30% of the teachers in grades K - 2 and grades 3 and 4.

Perhaps, these results too are a result of the curriculums' structure as was discussed in terms of having community people run workshops. The teachers in grades 5 and 6 may feel that they need to have more specific information about different careers because of greater sophistication on the part of their students. Specific training in career education, more information about career education, and more versatility in ideas for lesson

plans may all be perceived as important by the teachers of older students because career education is more of a digression from regular classroom activities and/or because of greater sophistication on the part of the students.

Table 6 also presents data, by school district, on ways that the SPICE staff could be of greater help. In investigating the responses to the SPICE staff items by district, having SPICE staff set up contacts with career people in the community and having the SPICE staff have more material available for teacher use (items F and D) were ranked 1, 2 or 3 by more than 30%

TABLE 6

Question 29: The SPICE Staff Would be of Greater Help If:
% Ranking Each Item as 1, 2 or 3 in Importance, by School District

School District	A	B	C	D	E	F
S.I. (R)	10%	10%	40%	50%	30%	50%
Brooklyn (K)	79%	43%	64%	50%	29%	71%
Bronx (X)	67%	44%	22%	67%	11%	78%

KEY:

- A = They spent more time at the schools.
- B = They had more information about Career Education.
- C = They did more training.
- D = They had more material available for teacher use.
- E = They were more versatile in ideas for lesson plans.
- F = They helped to set up contacts with career people in the community.

of the teachers in all three districts. The remaining items showed differences among districts. Both the Brooklyn and the Bronx teachers felt very strongly that the SPICE staff should spend more time at the schools. This item was ranked in the top three in importance by more than 65% of the teachers in each of these districts. More than 40% of teachers in Brooklyn and the Bronx also felt that the SPICE staff should have more information about career education. Having the SPICE staff do more training was ranked in the top three in importance by 40% or more of the teachers in Richmond and Brooklyn.

Despite the above findings, the interviews indicated that the teachers were positive in their attitudes toward their SPICE representative. They felt that coverage was adequate, and that a feeling of enthusiasm toward the project was conveyed.

Table 7 presents the results to question 39, which concerned ways in which the career education materials could be made more useful.

The availability of more career education materials was considered as 1, 2 or 3 in importance by more than 50% of the teachers at all grade levels. More material at an easier reading level received one of the top three ranks from more than 65% of the K - 4 teachers and from 45% of the teachers in grades 5 and 6. The need for the career education materials to be better organized into teaching units was ranked 1, 2 or 3 by more than 50% of the teachers at all grade levels. The need for teacher and/or pupil prepared materials to be shared among all career education teachers was another item which was ranked in the top three in importance by more than 40% of the teachers at all grade levels. Only at the level of grades 5 and 6 did more than 30% of the teachers rank more diversity in materials as 1, 2 or 3 in importance.

TABLE 7

Question 39: The Career Education Materials Would be More Useful If:

% Ranking Each Item as 1, 2 or 3 in Importance, by Grade Level

Grade Levels	A	B	C	D	E	F
K - 2	58%	21%	68%	11%	53%	42%
3 & 4	62%	23%	69%	8%	54%	62%
5 & 6	55%	36%	45%	27%	55%	55%

KEY:

A = There were more materials.

B = There were more diversity in the materials.

C = There were more materials at an easier reading level.

D = The materials were more comprehensive.

E = The materials were better organized into teaching units.

F = Teacher and/or pupil prepared materials were shared among all Career Ed. teachers.

Table 8 presents the results of question 48 which asked how the career education classes could be improved.

More field trips to places of business was ranked in the top three in importance by the greatest percentage of teachers at all grade levels. The highest percentage of teachers ranking this item in the top three occurred at the 3rd and 4th grade level with 85% of the teachers ranking the item in this category. Having more teachers involved in the career education program was ranked as 1, 2 or 3 in importance by more than 40% of the teachers at all grade levels as was making the career education courses a regular part of the curriculum. Having the teachers be able to do more specific training in job skills was ranked in the top three in importance

TABLE 8

Question 46: The Career Education Classes Would Be Better If:

% Ranking Each Item as 1, 2 or 3 in Importance, by Grade Level

Grade Levels	A	B	C	D	E	F
K - 2	11%	63%	42%	11%	21%	47%
3 & 4	8%	85%	54%	0%	31%	46%
5 & 6	27%	45%	45%	36%	45%	45%

KEY:

A = More students participated.

B = There were more field trips to places of business.

C = More teachers were involved.

D = There were more classes to accommodate more students.

E = The teachers could do more specific training in job skills.

F = The courses were a regular part of the curriculum.

by more than 30% of the teachers in grades 3 and 4 and by more than 40% of the teachers in grades 5 and 6.

In general, the findings based on the teacher questionnaire coincide with the interview data. The majority of teachers interviewed who tried to implement career education in their classrooms reported success, interest, and enjoyment on the part of their students. They felt that career education was a good motivating factor and a very natural vehicle for teaching skills. All teachers interviewed said that they would like to see career education as an integral part of the curriculum. To this end, they saw a combination Resource Person/Teacher Trainer as a necessary part of introducing the program into their schools on a large scale. They suggested that

one such person for each school would be ideal, one for two schools would be manageable.

Elementary School Teacher Projects. One of the major purposes of the training given to the elementary school teachers was to insure "infusion" of career education concepts into the teachers' classrooms. To summarize and keep track of these teacher activities, a Teacher Project Summary Sheet was devised by SPICE and IRDOE staff (see Appendix C). The project summaries provided data such as the number of career education teachers and projects, curriculum areas involved, and teachers' perception of the success of their efforts. These and other data are presented in Tables 9-11.

Inspection of Table 9 indicates that all three districts had approximately 20 career education teachers in the elementary schools and in all three districts an average of more than one career education project per teacher was undertaken. In Richmond, the data show that there was an average of at least two projects per teacher while in Brooklyn and the Bronx the average number of projects per teacher was less than two. The total figure across districts shows that there was an average of less than two career education projects per teacher.

The teachers in Richmond and Brooklyn were comparable in the amount of time required to prepare for their projects. In the Bronx, however, 90% of the projects required three hours or more of teacher preparation time, as opposed to 65% and 67%, respectively, in Richmond and Brooklyn. Overall, 72% of the projects required three hours or more of teacher preparation time and 28% required less than three hours of preparation time.

TABLE 9

Number of Elementary School Career Education Teachers, Projects,
and Teacher Preparation Time per Projects, by District

District	Number of Career Ed. Teachers	Number of Career Ed. Projects	Teacher Preparation time per project	
			3 hours or more	less than 3 hours
Richmond	19	43	28 (65%)	15 (35%)
Brooklyn	20	33	22 (67%)	11 (33%)
Bronx	19	29	26 (90%)	3 (10%)
Total	58	105	76 (72%)	29 (28%)

The data on curriculum areas emphasized in the career education projects (see Table 10) reveals that in all three districts, approximately three of the major five curriculum areas were represented in each project. For example, Richmond had 43 career education projects, but reported a total of 132 uses of the five curriculum areas. Thus, the projects cut across curriculum areas.

The percentages under each curriculum area represent the percentage of that area calculated as a ratio of the total curriculum areas reported by each district. In all three districts, the curriculum area with the heaviest concentration was language arts followed by social studies and reading. Mathematics and science both appeared less than 20% of the time in all three districts.

In the Bronx projects, all the projects involved 75% or more of the

TABLE 10
Curriculum Areas Involved in Elementary School Projects,
Class Involvement and Success of Project, by District

District	Curriculum Area					% of class Involved		Success of Project	
	Rdg.	Lang.	Soc.	Math	Arts	Stud.	Science	75% or more	less than 75%
Richmond 43 projects	25 (19%)	16 (12%)	41 (31%)	35 (27%)	15 (11%)	42 (98%)	1 (2%)	14 (33%)	29 (67%)
Brooklyn 33 projects	21 (21%)	11 (11%)	31 (32%)	26 (27%)	7 (9%)	32 (97%)	1 (3%)	4 (12%)	29 (88%)
Bronx 29 projects	18 (20%)	14 (16%)	25 (28%)	21 (24%)	10 (12%)	29 (100%)	0 (0%)	8 (28%)	21 (72%)
TOTAL	64 (20%)	41 (13%)	97 (31%)	82 (26%)	32 (10%)	103 (98%)	2 (2%)	26 (25%)	79 (75%)

students, and in both Richmond and Brooklyn, only one project did not involve 75% or more of the students.

Brooklyn had the highest percentage (88%) of projects which were reported to have been highly successful with the students. In both Richmond and the Bronx, less than 75% of the projects were judged as being above average or excellent in their success with the students.

Overall, 98% of the projects in the three districts involved 75% or more of the pupils in the class and 75% of the projects were perceived as being of above average or excellent success with the students.

Teachers in Richmond and Brooklyn reported that they would use all the projects again and only one teacher in the Bronx reported one project which would not have been used again.

TABLE 11
 Elementary School Projects Which Teachers Would Use Again,
 SPICE Assistance, and Projects Shared with Colleagues, by District

District	Would Use Again?		Was SPICE of help? (personnel, finances, resources, etc)			Shared?	
	Yes	No	Directly	Indirectly	No	Yes	No
Richmond	43 (100%)	0 (0%)	10 (23%)	3 (7%)	30 (70%)	42 (97%)	1 (3%)
Brooklyn	33 (100%)	0 (0%)	2 (6%)	7 (21%)	24 (73%)	26 (79%)	7 (21%)
Bronx	28 (97%)	1 (3%)	6 (21%)	4 (14%)	19 (65%)	26 (90%)	3 (10%)
TOTAL	104 (99%)	1 (1%)	18 (17%)	14 (13%)	73 (70%)	94 (90%)	11 (10%)

In all three districts, 65% or more of the projects were undertaken without any assistance from SPICE. The projects in the Bronx received the greatest help from SPICE (21% had direct help and 14% had indirect help) while Brooklyn projects received the least help (6% had direct help and 21% had indirect help). The Richmond projects reported that 23% received direct help and 7% received indirect help.

The Richmond projects had the greatest amount of sharing of projects with colleagues (97%), followed by the Bronx projects (90%) and the Brooklyn projects (79%).

Combining the data for the three districts shows that 99% of the projects were perceived as effective enough to use again. SPICE was of help

in only 30% of the projects, 17% receiving direct help and 13% receiving indirect help. Overall, 90% of the projects were shared with colleagues.

In summary, the two classroom projects undertaken, on the average, by each of the teachers typically required three or more hours of teacher preparation time, were concentrated in the areas of language arts and reading, were developed with little or no assistance from SPICE, would be used again, and were discussed or shared with other teachers. However, it must be noted that the probability is extremely small that these 105 career education classroom lessons would have been developed without SPICE intervention.

JUNIOR HIGH SCHOOL COMPONENT

Impact Projects. Whereas the SPICE elementary activities were geared to the development of lessons, projects, and activities by individual teachers, the junior high school component set the objective of involving teachers in planning school-wide career cluster programs to be implemented in each school. It is therefore necessary to describe these activities in some detail. As indicated earlier, three junior high schools within the selected districts were chosen for program participation, one from Brooklyn, one from the Bronx and one from Staten Island. The Brooklyn district was an inner-city area, the Staten Island district was a blue-collar area and the Bronx district was a white-collar area. No data were available on how the individual schools within the districts were chosen.

The first activity undertaken was the establishment of a volunteer impact team of six teachers and an administrator in each school to plan

activities within an occupational cluster area. Each school chose the cluster areas in which it wished to work and activities in each cluster were designed to last from four to six weeks. Two staff members from SPICE worked with the three junior high school impact teams to assist in setting up the cluster programs. The SPICE staff members were viewed as facilitators since specific activities were chosen by the teachers in each school.

Since each school was independent in its choice of clusters and activities, there were differences between districts and each district's program will be discussed separately.

Staten Island. Junior High School 2 in Staten Island formed a Steering Committee of 15 teachers, and this committee was subsequently divided into three Planning Committees, one for each anticipated cluster. As it turned out, activities were undertaken in only two clusters, construction and health. The activities for the construction cluster consisted of bulletin board displays throughout the school, a teacher-made film of construction sites which was shown at an assembly and a Speakers Day during which 42 speakers spoke to different classes about their different jobs in the construction trade. A list of more than 25 possible field trips and 40 available speakers was prepared for the teachers. Surprisingly, only about five trips were taken. Additionally, the impact teachers developed model lesson plans for integrating information about construction careers into subject-matter areas. No data were available on the use of these lesson plans.

The majority of the teachers' energy was spent in planning the Speakers Day and there were no follow-up activities planned. This seems to suggest that the lesson plans developed by the impact teachers were not used. Since no follow-up activities had been planned, teachers felt that the

activities planned for the construction cluster had been ineffective as instructional activities. One of the reasons for this ineffectiveness may have been that student interests were not taken into account in planning and implementing the activities in this cluster.

For the second cluster, health careers, the teachers took a different approach to organizing the activities. Before setting up career conferences students filled out questionnaires listing activities that interested them and the students were then scheduled into conferences which were of particular interest to them. Interested students were also taken on trips to a local hospital and the Police Academy. Other activities undertaken for all students were:

1. the provision of materials about health careers for each classroom,
2. visits from a policeman and a policewoman who talked about safety careers, and
3. a Service Awards Assembly where students who had worked as volunteers in health and safety care services received awards.

The restructuring of the career cluster activities for the health cluster seemed to benefit the career education program. The students only attended conferences which interested them and the speakers' interest appeared to be heightened by knowing that their audiences had been selected on the basis of interest in the topic.

The major difficulties with the Staten Island career cluster programs appeared to be:

1. a lack of student input into the choice of the clusters (for the construction cluster),

2. inadequate preparation of students in the background of the occupations,
3. a lack of follow-up activities (particularly for the construction cluster), and
4. no assessment of whether or not the students had benefitted from the cluster.

However a very positive aspect to the career education program was the enthusiasm of the administration and the impact teachers. The activities which were undertaken required considerable planning and effort. While the majority of the activities were culminating activities which seem to have been based on inadequate preparation of students, the impact team appears to have developed new ideas for implementing a career education program. The enthusiasm of the staff and the activities which were undertaken constitute a good foundation for future activities in career education at Junior High School 2. The impact team should, however, work on defining goals for each cluster, provide students with adequate information about the clusters before setting up elaborate career programs, plan and implement follow-up activities and build in an evaluation procedure to determine what students have gained from activities in each cluster.

Bronx. The SPICE program in Junior High School 113 in the Bronx was difficult to organize. As in Staten Island, the SPICE program was introduced to the school faculty by a SPICE staff member early in January, but participating teachers and clusters for the program were not chosen until the end of March. Due partially to the short remaining school time available, of the health careers and communications clusters chosen, only health careers was targeted for school-wide implementation.

The health careers cluster began with a Career Show which had been organized entirely by SPICE personnel since teachers were chosen too late for participation in this phase of the program. The Career Show consisted of an assembly program at which students saw slides of the "start-to-finish" procedures involved in caring for a person with a broken leg. The other activities in this cluster were organized with participation and help from the teachers. The activities consisted of a Speakers Day involving over 30 speakers from the community who talked about their jobs, hospital trips for interested students, bulletin boards on health careers throughout the school, a health careers newsletter done by the students, health career films and an elaborate Health Fair, at which medical and laboratory equipment was exhibited and manned by hospital personnel who described the equipment and answered questions.

The primary problems with the health careers cluster were the late start, the excessive duration of the activities (seven weeks), the choice of the cluster without student input, the lack of initial background material and follow-up activities for the classroom teachers and the failure to provide for any assessment of students' gains from the cluster. As with the cluster activities at Junior High School 2 in Staten Island, the emphasis was on large-scale, comprehensive kinds of activities with little or no emphasis on preparing students with adequate background information or determining the effectiveness of the activities as instructional procedures.

Due to the length of the health careers cluster, the communications cluster was not begun until May. The major activity of the communications cluster was the use of the New York Times in different subject areas by the 125 seventh grade students in the mini-school. In addition to their

use of the Times in the classrooms students were taken on field trips to the Times and to CBS-TV. The only other activity which was undertaken was the production of a communications calendar by some of the students. No bulletin board displays were constructed and no materials were provided to the classrooms. Virtually all of the activity occurred only in the mini-school.

The communications cluster was an extremely limited one. There were no data available to explain why the mini-school was the only area selected for this activity. However, the activities in the mini-school appeared to be well-planned and implemented. The students first used the New York Times in their classes both as a source of information about different subject areas and as a device to learn about one form of communications before going on field trips. It is unclear what, if any, activities preceded the field trip to CBS-TV, but the students, at the least, were exposed to another area of communications.

Overall, the difficulties in implementing the career cluster program appear to rest with the school's administration. Teachers were chosen to participate rather than allowed to volunteer and the fact that they were not chosen until the last minute suggests a rather haphazard choice procedure. Most of the teachers chosen worked well and appeared to be supportive of career education, but the administration primarily gave lip service support to the program. The students who were involved apparently seemed interested, but inadequate evaluation of the students' gain from the clusters prevents any conclusive statement about their interest. The fact that only the mini-school was involved in the communications cluster points to a lack of organization and/or initiative on the part of the impact team. This junior

high school apparently needs a full-time coordinator if the SPICE program is to be organized and implemented in a more comprehensive and effective manner.

Brooklyn: The SPICE program at Junior High School 57 met initially with great resistance and was never fully organized or productive. In January, a SPICE staff member presented the SPICE program to a PTA meeting and found that the parents felt that the SPICE program constituted a way to track their children into a vocational high school instead of giving them an opportunity to participate in a college-oriented program. After attempting to assure the parents that this was not the case, the SPICE program was presented to a faculty meeting early in February. The school principal selected several teachers for participation on the impact team, but the teachers were never able to stay at school for the after-school meetings and only two teachers at a time were able to attend the IED workshops because of difficulty in getting substitute teachers to cover their classes. In March, the four teachers who had attended the IED workshops drafted a proposal for a career education program for the 1973-74 school year. It was not until April that the guidance teachers decided to plan cluster activities for the current academic year. The guidance department thus became the impact team.

Health careers was the first cluster chosen and the first activities began during the last week in April. Each classroom was provided with a set of materials on health careers and each class saw a film on health occupations during assembly. The impact team prepared lesson plans which provided opportunities for students to identify their interests and aptitudes in health careers. Discussions in each classroom constituted follow-up activities to the film presentation.

A second activity undertaken was the presentation of 14 films (rented by SPICE) about different occupations. Students saw a different film each week and then indicated on "Career Interest Cards," jobs that they would like to further explore. However, the follow-up activities never went beyond the collection of the cards. The films and the Career Interest Cards are still available in the school and the impact team hopes to use them next year.

Thirdly, SPICE paid for a five week subscription to the New York Times for 10 English classes. The plan was to work on reading and writing skills and career exploration in communications through the use of the Times. Interviews with two television newscasters were published in a newsletter prepared with the help of staff members from the Times. No data were available on activities which were organized using the Times nor were data available on any follow-up activities or materials prepared by the teachers.

A small group of teachers who had attended the spring workshops planned a Career Day, and it was scheduled for late in June. The teachers arranged for 30 speakers to visit the school and rotate among classrooms to talk about their occupations. No data were available on the occupations represented by these speakers. Since the Career Day took place at the end of June, there was no opportunity for follow-up activities.

The difficulties with the program resulted from the time wasted before the program was organized. Before the SPICE program was introduced to the school, the principal had developed the idea of creating skills and interests centers in the school in the areas of business office skills, communications, music, ecology, nursing, food, and fashion. The principal intended that the program be piloted during the spring term. In January, a SPICE staff member

provided the principal with a complete set of curriculum materials which were correlated with career education. The principal was clearly interested in promoting career education in the school. However, during the school year, the teachers' union was urging that the principal's contract not be renewed and the school faculty was divided between those loyal to the principal and those who were opposed to him. Consequently, the political climate in the school was such that organizing a career education program was difficult. SPICE made an effort to provide the guidance department (which had become the impact team) with implementation plans for the projects and requested teacher-made lesson plans in return. The lesson-plans were never returned and thus evaluation of teacher activities or follow-up activities was impossible. The administration appeared very supportive of career education, but the impact teachers seemed to be less committed to the concept. It is, of course, impossible to know if there is a lack of commitment on the part of the teachers or simply a difficult political situation preventing the teachers from attending to anything except regular, day-to-day classroom activities. However, since there are now some materials available in the school it is possible that a career education program will be organized next year.

Comparison of the Three Junior High School Programs. Each district implemented a health careers program and this cluster was the most successful in all three schools, although for different reasons. In Staten Island, where the health activities appeared to be the more successful of the two clusters, the impact team attempted to ascertain and program students according to their interests in different health careers. This approach was used because scheduling students indiscriminately into activities in the

construction cluster had not been successful. In the Bronx, the health cluster was the most elaborately planned and implemented of all the clusters in any school. The SPICE staff organized the initial activity and when the teachers became involved, several other activities were implemented. In Brooklyn, the success of the health cluster resulted from providing students with background information, ascertaining their interests and aptitudes in health careers, and then providing for follow-up activities.

The three schools differed in their approaches to implementing the career clusters. In both Staten Island and the Bronx, the emphasis was on providing large-scale, elaborate activities. In Brooklyn, the process of introducing students to career education was opposite to that of Staten Island and the Bronx. The classrooms were provided with materials for the health cluster prior to the other activities and the students were exposed to films about different occupations before filling out student interest cards. While the health cluster had follow-up activities, the other Brooklyn clusters were not completed. An effort was made to give students career information and collect data on their interests, but once this had been done, nothing further was done with the information. While there may be merit in using a large scale approach because it reaches large numbers of students, the failure to provide students with prior introductory information and material and appropriate follow-up would seem to negate most of this method's effectiveness. It would seem that an effective career education program would ideally have ongoing activities with students gathering and processing information from many different sources rather than a one-shot extravagant program.

The three districts were also very different in terms of teacher and administrative support for the SPICE program. In Staten Island, the impact team consisted of volunteers and the program was organized early. Both the school administration and the impact team were very enthusiastic about the program and modified their activities based on their experiences with their first cluster. In the Bronx, the school administration gave verbal support to the program, but either did not carry out or delayed carrying out duties which they had promised to perform. The teachers who were finally chosen as the impact team worked well and seemed to be committed to the program. The selection of the teachers so late in the semester made it impossible to undertake many activities. In Brooklyn, the principal was very interested in the SPICE program, but the political turmoil in the school made effective program implementation difficult.

Interestingly, in all three schools faculty members who were not part of the impact team were for the most part unaware of any career education program in the school. Some who were aware of the program viewed the program either with hostility (feeling that the impact teachers were somehow more privileged than they) or with negativism, feeling that little or nothing could effectively be accomplished in career education. Others who were aware of the program appeared to be interested, but unclear as to how to begin to introduce career education into their classes.

Overall, the three junior high schools appeared to make some progress in their career education programs. Given the initial work which was accomplished this year, the schools should be ready to initiate more organized and effective career education programs in the future.

Teacher Activities. As was the case for the elementary school component, the evaluator and SPICE staff developed a project summary sheet.

The SPICE junior high school facilitators chose not to use this project summary sheet and instead, to facilitate matters, developed their own weekly form (Impact Program Sheet) for teachers. The Impact Program Sheets, which were used for calculating overtime pay, indicated the teacher's weekly objective, the methods and developmental procedures used to meet that objective, the success of the methods used and the amount of time spent on each method. There was additional space provided for the teachers to indicate if and how SPICE had been of help, what additional assistance they would like to have received from SPICE, and what kind of sharing they engaged in with their colleagues.

Since the junior high school projects were directed at an entire school, grade, or department as opposed to being directed at individual classes as in the elementary school project, the data reported were different from that of the elementary school level. Impact Program Sheets were submitted by only one school (Junior High School 113). Prior to April 30, 1973, when teachers began recording their overtime, only five teachers submitted forms indicating approximately 16 hours of overtime work. Overtime included activities such as conferences and meetings, typing forms, telephone calls, collecting materials, preparing reports on field trips, and preparing lessons.

There were many cases where teachers reported a part and/or more than a full week on a single sheet. There also seem to have been repetitions of the same data. In many instances the sheets were difficult to decipher, and it was impossible to accurately analyze and report these data. Table 12

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shows the average amount of overtime per week, the usefulness of SPICE and the sharing done among colleagues as reported by the Bronx teachers. Data has been omitted in some instances due to the untenable nature of the impact sheets. Generalizations are obviously not possible since data were not available for the other two districts.

TABLE 12

Number of Teachers, Average Overtime, SPICE Assistance, and Sharing with Colleagues as Reported by the Bronx Impact team

Item	Health Cluster	Communications Cluster
Total number of teachers	8	4
Number of work weeks reported	*	*
Average weekly overtime reported	*	*
Was SPICE of help?		
Yes	8	6
No	7	1
No answer	10	2
Did you share work with colleagues?		
Yes	14	6
No		1
No answer	10	2

*Data omitted due to unusable nature of impact project summary sheets.

Junior High School Survey. The evaluators constructed a revised version of the elementary school questionnaire for the junior high school teachers. The revisions resulted from some of the suggestions made by the SPICE staff.

Table 13 summarizes the positive and negative responses to the questions relating to workshops, SPICE staff, career education materials and a career education program by junior high school teachers in the SPICE program. Since Tables 3 and 13 were based upon essentially the same questionnaire and were organized in the same manner, one can refer to the explanation of Table 3 (p. 19) to clarify the procedure and definitions used in Table 13.

TABLE 13

Summary of Positive and Negative Responses to Questions Relating to Workshops, SPICE Staff, Career Education Materials and A Career Education Program by Junior High School Teachers in the SPICE Program

Type of Response	Questions Relating to							
	Workshops		SPICE Staff		Career Education Materials		Career Education Classes	
	N	%	N	%	N	%	N	%
Positive (scoring 75% or more)	19	79	17	71	1	4	2	8
Negative (scoring 30% or less)	0	0	0	0	0	0	0	0

Overall, the data in Table 13 indicated that the junior high school teachers had a very positive attitude toward the workshops and the SPICE

staff. Seventy-nine percent of the teachers responded positively to the workshops and 71% responded positively to the SPICE staff. There was only one positive response to career education materials and only two positive responses to career education classes. These findings suggest that the junior high school teachers felt that the workshops and the SPICE staff were more effective than were the career education materials and career education classes. In addition, none of the junior high school teachers had a negative attitude towards any of the four major aspects of the program.

As was the case with the questionnaire for the elementary school teachers, there were questions concerned with ways to improve each of the major aspects of the program. Here too, the reader is referred to the explanation of the scoring procedures for the elementary school data presented in Tables 4-8 (see p. 20). Table 14 summarizes the data from question 12 which relates to ways of improving the workshops.

TABLE 14

Question 12: The Workshops Would Be Better If:
% (n = 24) Ranking Each Item 1, 2 or 3 in Importance

A	B	C	D	E	F	G	H	I	J
63%	50%	54%	67%	54%	63%	51%	33%	38%	75%

KEY:

- A = If people from community ran workshops.
- B = Better attendance by all career education teachers.
- C = New materials were presented and discussed.
- D = Teachers could share ideas and problems.
- E = Workshops were held more frequently.
- F = Teachers presented lesson plans.
- G = More continuity from one workshop to the next.
- H = One person or one group ran all workshops.
- I = More time were provided for questioning speakers.
- J = Workshops related career education to New York City curriculum.

The responses to the workshops reveal that the teachers in the junior high school program felt that the workshops could be considerably improved. All of the items were ranked as 1, 2 or 3 in importance by more than 30% of the teachers. Items H and I, having one person or group run all the workshops and having more time to question speakers, were the only two items ranked as important by less than 50% of the teachers. Four items, better attendance by all career education teachers, presentation and discussion of new materials, greater frequency of workshops and more continuity from one workshop to the next, were ranked as among the top three in importance by 50% or more of the teachers. Items A, F and J, having people from the community run the workshops, having teachers present lesson plans and having workshops relate career education to the New York City curriculum, were ranked as 1, 2 or 3 in importance by 63% or more of the teachers. These three items relate primarily to the "relevance" of the career education workshops. The greatest concern seemed to be that the career education information was not adequately and specifically related to the New York City curriculum, as evidenced by the 75% of teachers who ranked this item in the top three.

It should be noted that there was considerable overlap in ranking done by the junior high school teachers. Many of the teachers gave the same ranks of 1, 2 or 3 to several items, which appears to indicate that the teachers felt very strongly about a number of the items. The junior high school teachers seemed to feel that the workshops needed considerable modification before they would be of specific help to them.

Table 15 summarizes the data from question 29 which was concerned with ways in which the SPICE staff could be of greater help.

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TABLE 15

Question 29: The SPICE Staff Would be of Greater Help If:

% Ranking Each Item as 1, 2 or 3 in Importance

A	B	C	D	E	F
67%	42%	50%	54%	38%	50%

KEY:

- A = They spent more time at the schools.
- B = They had more information about career education.
- C = They did more training.
- D = They had more material available for teacher use.
- E = They were more versatile in ideas for lesson plans.
- F = They helped to set up contacts with career people in the community.

The junior high school teachers felt most strongly that the SPICE staff should spend more time at the schools. This item was ranked as among the top three in importance by 67% of the teachers. Having SPICE staff do more training, provide more material for teacher use and help set up contacts with career people in the community were all ranked in the top three in importance by 59% or more of the teachers. Having more information about career education and being more versatile in ideas for lesson plans were also ranked as being among the top three in importance by 42% and 38% of the teachers, respectively.

As with the rankings on the workshop items, there was considerable overlap in rankings on the SPICE staff items. Many of the items were given duplicate ranks of 1, 2 or 3 and resulted in the high percentage of ranks of 1, 2 or 3 for each item. This finding may indicate that all the items were seen as very important by more than 30% of the teachers.

Table 16 presents the data on ways to improve the career education materials.

TABLE 16

Question 39: The Career Education Materials Would be More Useful If:

% Ranking Each Item as 1, 2 or 3 in Importance

A	B	C	D	E	F
46%	38%	46%	29%	67%	46%

KEY:

- A = There were more materials.
- B = There were more diversity in the materials.
- C = There were more materials at an easier reading level.
- D = The materials were more comprehensive.
- E = The materials were better organized into teaching units.
- F = Teacher and/or pupil prepared materials were shared among all career education teachers.

The item about career education materials which was ranked in the top three in importance by the greatest percentage of teachers (67%) was that the materials should be better organized into teaching units. Three items, more materials, more materials at an easier reading level, and the sharing of teacher and/or pupil prepared materials among all career education teachers were all assigned a rank of 1, 2 or 3 by 46% of the teachers.

Thirty-eight percent of the teachers ranked more diversity in materials as being among the top three in importance, and less than 30% of the teachers ranked having more comprehensive materials as one of the three most important items.

Table 17 presents the data on ways to improve the career education classes.

TABLE 17

Question 48: The Career Education Classes Would be Better If:

% Ranking Each Item as 1, 2 or 3 in Importance

A	B	C	D	E	F
46%	46%	83%	58%	42%	79%

KEY:

- A = More students participated.
- B = There were more field trips to places of business.
- C = More teachers were involved.
- D = There were more classes to accommodate more students.
- E = The teachers could do more specific training in job skills.
- F = The courses were a regular part of the curriculum.

The involvement of more teachers in the career education classes was considered of greatest importance to the junior high school teachers with 83% of them ranking this item as having a priority of 1, 2 or 3. Seventy-nine percent of the teachers felt that making the career education courses a regular part of the curriculum was among the top three in importance.

Having more classes in career education to accommodate more students had the third highest percentage of teachers (58%) ranking it as one of the top three in importance. The remaining three items, having more students participate, more field trips to places of business and having teachers do more specific training in job skills, all received a ranking of 1, 2 or 3 from over 40% of the teachers.

These data indicate that the junior high school teachers were positive toward the workshops and the SPICE staff and rather neutral toward the career education materials and classes. Furthermore, the teachers indicated that the workshops, functioning of the SPICE staff, career education materials and classes could be considerably improved.

As indicated above, seven junior high school teachers were interviewed. They indicated that the SPICE program consisted of school-wide activities planned by SPICE personnel and teachers. Only one teacher interviewed said that he had introduced lessons in career education to his classroom activities and also scheduled trips on his own. All teachers interviewed found the SPICE staff to be helpful, cooperative, and available when needed. They differed in their opinions of the materials. Some said that the materials were excellent while others said they were nonexistent. However, most were motivated to explore further and felt that they had been given the resources to do so.

According to the teachers, their principals were pro-career education. The teachers would, if possible, institute career education on a large scale next year and would include a massive teacher-training program for the entire faculty (perhaps at regular faculty conferences) and full-time resource people in the school to help carry out the program. One teacher suggested "borrowing" a person from industry for a year.

It would thus appear that the SPICE program was positively perceived at the junior high school level, but with greater reservations than at the elementary school level.

GUIDANCE COMPONENT

A questionnaire was administered by the IRDOE staff to the guidance counselors in the SPICE program. The instrument survey, based in part on the elementary and junior high school questionnaires was reviewed by the Director of CUNY's Guidance Laboratory. Its purpose was to assess the counselors' reactions to the guidance workshops and to the SPICE staff they had worked with. Questions 1 - 9 related to the workshops and questions 10 - 25 related to the SPICE staff. The first 25 questions were statements about these two aspects of the program and the counselors were asked to respond using a scale of 5 (agree strongly) to 1 (disagree strongly) for each statement. A total score for each section, the sum of the responses to each question in that section, was computed for each counselor. Question 26 consisted of six statements of ways that the SPICE staff could be of greater assistance. The counselors were asked to check each statement that was important to them and to rank these statements in order of importance.

The procedure for analyzing these data consisted of first calculating the maximum possible score for each section (Questions 1 - 9 and Questions 10 - 25) and then determining the number and percentage of counselors who scored in the top 75% and the bottom 30% of the maximum possible score for each section. Scoring in the top 75% was viewed as showing positive feelings while scoring 30% or less was viewed as showing negative feelings.

Question 26 was analyzed by determining the number and percentage of counselors who ranked each statement as 1, 2 or 3 in importance.

Table 18 presents the data on Questions 1 - 25 and Table 19 presents the data on Question 26.

The IRDOE questionnaire was returned by only 50 % of the counselors to whom it was given. Generalizations on the basis of these data are therefore suspect.

TABLE 18
Summary of Guidance Counselors' Positive and Negative Responses
to Questions About Workshops and SPICE Staff

Type of Response	Workshops	SPICE Staff
Positive (scoring 75% or more)	71%	0%
Negative (scoring 30% or less)	0%	0%

For both the workshops and the SPICE staff, 71% of the counselors scored 75% or more of the maximum possible score and none scored in the lower 30% of the maximum possible score. These data indicate a strong positive feeling about both workshops and the SPICE staff for the counselors who returned the questionnaires.

The data about the workshops from the IRDOE questionnaire are supported by data gathered on the CUNY Guidance Laboratory Reaction sheets which were completed by the counselors. One workshop received a rating of "not helpful" from 40% of the counselors and a second workshop was rated "not helpful" by 16 % of the counselors. The remaining five sessions, however, were ranked either "very helpful" or "somewhat helpful" by 100% of the respondents.

TABLE 19
 Guidance Counselors' Responses to Question 29:
 The SPICE Staff Would Be of Greater Help If:
 % Ranking Item 1, 2 or 3 in Importance

A	B	C	D	E	F
43%	14%	71%	43%	57%	43%

KEY: A = They spent more time at the schools.
 B = They had more information about career education.
 C = They did more training of teachers.
 D = They had more material available for counselor use.
 E = They were more versatile in ideas for counseling.
 F = They helped to set up contacts with career people in the community.

As can be seen from Table 19, doing more training of teachers was ranked as 1, 2 or 3 in importance by 71% of the guidance personnel who returned the questionnaires. The item receiving the second highest percentage, 57%, was the need for the SPICE staff to be more versatile in ideas for counseling. Spending more time at the schools, having more materials available for counselor use, and helping to set up contacts with career people in the community were all considered as 1, 2 or 3 in importance by 43% of those who returned the questionnaires. Only 14% felt that having more information about career education was a priority item.

The fact that 71% of the respondents felt that the SPICE staff doing more teacher training was important is consistent with their responses on the Reaction sheet to the question which concerned the SPICE staff. Only 33% of the counselors felt that the field supervisors had been helpful in the program while 67% of them were either unsure or felt that the field

supervisors had not been helpful in the program.

The guidance counselors appear to have been positive in their attitudes to the SPICE staff and their workshop experience. They also felt that there was room for a good deal of improvement.

DISTRICT OFFICE REPORTS

As part of the total evaluation effort, the local District Offices in the Bronx, Staten Island and Brooklyn were contacted by the evaluator and requested to prepare a brief report of their impressions of the 1972 - 73 effort and their recommendations for its operation during 1973 - 74. The evaluators received reports from the liaison people to the SPICE program in Districts 11X and 31R. The report from District 11X, culled from interviews with teachers and administrators, was comprehensive in scope, detailing both positive and negative aspects of the SPICE program. The District 31R report, which expressed the point of view of the district office people, offered only criticisms.

Bronx. The Bronx office reported that the teachers found the workshops quite valuable in making them aware of the need for career awareness and career education. They felt that the manner in which concepts of career awareness, programs of curriculum change, and materials were introduced was satisfactory. However, the teachers felt that there should have been more of an emphasis on methods of integrating career education subject matter into their classes. The report listed the objectives of the elementary career education program as viewed by the teachers who participated in the workshops. The teachers were able to

feedback the concepts, attitudes and competencies which were developed and stressed at the workshops. They showed a fine understanding of all components of a comprehensive career education program. It seemed that the workshops were successful in introducing and instilling the concepts of career education and in addition acted as a prime motivating factor. Teachers expressed a clear desire to implement a career education program in their schools and classes.

The problem, as viewed by teachers, was how they were to go about actually administering and organizing a program external to the regular school activities. That is, the teachers viewed the SPICE effort as a separate entity and not as an official part of their school board planning. This perception could be altered through more careful coordination of career awareness programs within the schools. It was recommended that the emphasis should shift from input of information from "too many seemingly uncoordinated sources," to actual administration and coordination of a career awareness program.

General criticisms of the workshops included: 1. an inundation of information with no time provided for general discussions and follow through, 2. a "project-oriented" approach, 3. a lack of relevance to the New York City school system, 4. too much repetition, and 5. a lack of teacher participation in the planning of the workshops.

The district office report cited some "major problems" of the SPICE program, which were of both an administrative and conceptual nature. These problem areas included: 1. inadequate communication -- often causing disruption of a classroom routine, 2. a lack of liaison and coordination between SPICE and other on-going career education programs in

the school, 3. unclear and conflicting goals, 4. insensitivity toward and ignorance of the realities of urban school life, 5. a lack of liaison with other school personnel, and 6. a general lack of coordination between the different SPICE facilitators and personnel visiting the schools.

Staten Island: Members of the Staten Island District Office noted a lack of coordination and cooperation between SPICE and their administrative offices, as well as among SPICE personnel themselves.

SPICE failed to contact the community school board and the district's curriculum coordinators about the program. The District Office noted an insensitivity on the part of SPICE toward the needs and procedures of the Board of Education and the local school district. District people resented SPICES's attitude that they should have been "thankful" to have been chosen as a pilot district. They felt that the directors of SPICE had "unreal expectations" as to how the teachers in the program would in turn be able to train other teachers, especially when there had been absolutely no provisions made by the District to do so. Confusion was rampant on all levels, as there was no viable model, or even parameters of a model, for implementation of the program.

Recommendations for next year included: 1. involving the district offices in all planning, 2. selecting facilitators from the ranks of the New York City teachers, 3. providing for teacher intervisitation, 4. selecting actual teachers practicing career education to lead workshops, and 5. arranging workshops with varied personnel (teachers, guidance counselors, and administrators) so that they can better work together to plan a viable career education program. In addition, P.S. 11R, the only feeder

school not involved in the career education program, should be included in all activities next year so as to not put its pupils at a disadvantage.

All of the criticisms from the district offices seem to imply a lack of preparation, organization, well-defined objectives, cooperation, and good public relations on the part of the SPICE program. The teachers interviewed by the evaluation team also mentioned many of the above criticisms, but felt that the positive aspects of the program far outweighed the negative ones. Teachers interviewed generated enthusiasm both for career education and for the workshops. Most were understanding of the limitations on the workload placed on the elementary school facilitator, and felt that under those circumstances, coverage was adequate. (see Workshop section pp. 12 - 17)

The major debilitating factor of the SPICE effort seems to have been an apparent inability or unwillingness on the part of the SPICE administrators to work and plan with the administrators in the schools and in the district offices. SPICE objectives appear to have been idealistic and experimental, particularly for the New York City school system. SPICE envisioned a massive teacher training program in the schools which would generate a grass roots movement among teachers who would then be encouraged to create a program geared to the needs of their pupils. Rather than handing teachers a pre-packaged program mandated from above, the talents of New York City's teachers were to be tapped in this curriculum effort. This procedure would, hopefully, generate enthusiasm for the new curriculum and in addition lead to the development of a more applicable and utilitarian curriculum package.

Once the teachers accepted this concept they were highly enthusiastic and productive. For the most part, they felt that they were equal to the

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task and that someone was finally looking to the logical source for curriculum development. By the fifth IED workshop, it was quite evident that the teachers felt that a long ignored and untapped natural resource of the school system - the teaching staff - was finally being utilized to good advantage.

The problem as seen by the District Offices seemed to lie with the usurpment by SPICE of the powers, talents, and experience of the public school administrators. SPICE expected the teachers to return to the schools and educate their supervisors. This approach was not only indicative of poor public relations, it was also highly unrealistic. Administrators must be included in the re-education process as well as consulted and included in every aspect in the implementation of a new program. The administrators of SPICE should have been working with the public school administrators in a manner similar to the work of the SPICE facilitators with the public school faculty. This was not the case.

While the overall objective seems to have been idealistic, quite tenable, and productive, the serious omission of careful orientation and planning with district administrators seems to have given rise to confusion, antagonism, and a general feeling of a lack of competence and sophistication of the SPICE administrators in the eyes of the district personnel. If the needs of administrators had been taken into account, the SPICE effort probably would have provided for better public relations and could have run more smoothly.

It must be pointed out, that there was probably a good deal of residual resistance to the SPICE program in the District Offices because of preconceived misconceptions about career education. In one instance a teacher

reported being continually harrassed by her district office arranging a trip to a printing company. The district office complained that the class in question was "above average," and should be channelled into more professional careers. The teacher was called into the district office on three separate occasions and was intimidated into cancelling the trip. The incident indicates the lack of knowledge and understanding of careers and career education on the part of at least one district office. In addition to the inaccuracy as to the facts of the matter--there are many "professional" careers to learn about at a printing company--the district office demonstrated one of the very attitudes that the career education concept is attempting to change.

In the future, the district office should be included both in the processes of planning and training so that there can be greater integration of career education into the regular school curriculum. Thus the hesitancy of some of the teachers about designing a program that may or may not be accepted by their district offices may be overcome.

TIME MANAGEMENT

The evaluation team devised a time management log to be completed by SPICE elementary and junior high school personnel. The time management log was collected on a weekly basis and provided a summary of the percentage of time that SPICE personnel spent on 16 possible activities. These data were analyzed by IRDOE and returned to the SPICE project director so that he could assess how well the program activities were progressing and if necessary redeploy his personnel. These weekly reports, provided for the period March-May 1973, were tabulated and prepared as monthly summaries. Daily logs,

weekly log summaries, an explanation of the weekly time usage graphs and graphic summaries of the monthly time management logs are presented in Appendix D. The monthly graphs follow the instructions for the weekly time usage reports. Table 20 presents the number of instances and the % of the working SPICE time spent in each of the 16 listed activities. Table 21 summarizes these data across groupings of these activities. The percentage of time engaged in each of the groupings of activities and the number of occurrences of the activities are indicated for each of the three months.

Overall, SPICE personnel spent most of their time each month in conferences while very little time was spent in the classrooms either observing classes, evaluating teachers or teaching classes. Thus, SPICE personnel were engaged in conferences 45% of the time in March, 48% in April and 39% in May. It is important to note that while less time was spent in conferences in May than in either March or April, no extra time in May was devoted to either classroom observations, the teaching of classes or the evaluation of teachers. In fact, in May more time was spent in clerical activities, travel and the collection, preparation, and evaluation of materials than in March or April while less time was spent in the preparation of reports or informal reporting. Of particular interest was the fact that only one classroom demonstration and one evaluation of a teacher took place in all three months. Also, only 2% of the time in March and 1% of the time in April and May was devoted to classroom observations.

At this point in time, it is not clear how the system was used by the SPICE administrators to modify the behavior of SPICE personnel.

TABLE 20

Time Management Logs for the Months of
March, April and May

Activities	Month					
	March		April		May	
	N*	%*	N*	%*	N*	%*
individual teacher, guidance or librarian conferences	117	11	70	4	57	6
group meetings with teachers, guidance counselors or librarians	32	12	42	8	23	6
collection, preparation and evaluation of materials	45	9	58	9	72	12
classroom observations	12	2	1	1	5	1
informal reporting	71	7	39	5	32	3
clerical (time sheets, budgets, logs, typing, newsletter, telephoning, administrative and organizational duties (etc.))	68	8	157	15	188	18
preparation of reports	52	7	37	6	27	3
teaching classes (demonstration)	--	--	1	1	--	--
travel (time-specify)	71	10	85	9	61	13
evaluation of teachers	1	1	--	--	--	--
outside agency contact	98	12	61	7	39	5
conferences with resource personnel	49	8	39	4	27	6
meetings with administrators (principals, etc.)	10	2	31	3	20	2
workshops	--	--	23	13	7	7
staff meetings or individual conferences with staff members	--	--	41	9	56	7
other (specify)	95	11	16	6	10	11

* N is defined as the number of occurrences of the activity and % as the % of time engaged in the activity.

TABLE 21

Summary of Time Management Logs for the Months of
 March, April and May

Activities	Month					
	March		April		May	
	N*	%	N*	%	N*	%
conferences or contact with teachers, guidance counselors, librarians, outside agencies, resource personnel, administrators, SPICE staff members and workshops	306	45	307	48	229	39
collection, preparation and evaluation of materials	45	9	58	9	72	12
preparation of reports and informal reporting	123	14	76	11	59	6
clerical (time sheets, budgets, logs, typing, newsletter, telephoning, administrative and organizational duties, etc.)	68	8	157	15	188	18
classroom observations	12	2	1	1	5	1
teaching classes (demonstration)	--	--	1	1	--	--
evaluation of teachers	1	1	--	--	--	--
travel	71	10	85	9	61	13
other	95	11	16	6	10	11

* N is defined as the number of occurrences of the activity and % as the % of time engaged in the activity

SECONDARY SCHOOL COMPONENT

The SPICE secondary school component, as was stated earlier in this report, was separate from the elementary and junior high school programs. The director of the secondary effort decided to devote this first year to initiating contacts and developing plans with high schools for subsequent implementation during the next year. His immediate goal was to enable teachers to initiate and maintain career education in the high schools selected for the project. The project also had a long range goal of initiating a good working relationship between the educators of both community colleges and high schools and to assist students in their transition from secondary education to post-secondary education. In addition, since SPICE was a funded project that would terminate its role at some future date, it was expected that an ongoing career education program would be initiated in the model schools.

The staff of the SPICE secondary program was composed mainly of faculty from FIT. FIT was initially chosen because the project was going to concern itself with careers in the fashion industry. SPICE was to plan and effect a program of fashion career education in which there would be curriculum revisions, emphasis on preparing students either for employment or future education in the field, and assistance to high school teachers so that they could become fashion industry occupational counselors. To accomplish this, a Career Education Resource Center was to be created in each high school.

Erasmus Hall High School in Brooklyn, Herbert H. Lehman High School in the Bronx, and New Dorp High School in Staten Island were the schools chosen to participate in the project. Erasmus Hall High School was the first school contacted. It was agreed that SPICE would assist in establishing a

career education program and there followed a series of meetings between teachers at Erasmus Hall and SPICE that were to lead to a career education plan for the school. A similar procedure was followed at Lehman High School.

In addition, three workshops were held for FIT, Erasmus, and Lehman faculty members relating to career education philosophy and development.

Specifically, the development of a career education program at Erasmus Hall consisted of meetings between High School faculty and SPICE on career education and how it related to Erasmus Hall. Six long range goals, 13 specific proposals and three statements about what the student will know upon leaving the school were agreed upon. Specific proposals included ideas such as a teacher training program in career education and development of both a resources center and "world of work" modules. In addition, four major areas of development were agreed upon and four committees were formed to develop and plan the goals for each area. Thus, a mini-school committee, a curriculum committee, a guidance committee and a resource center committee were organized.

At Herbert H. Lehman High School, the SPICE staff was involved in developing a career education program within the entire school and within the "academy" that was being planned. The academy was designed for students who did not adjust to a regular school program and the special program proposed for them would emphasize career interest and opportunities. SPICE became involved in the development of the academy and in the development of seven concerns and goals for career education for the entire Lehman school.

Analysis of the development of the SPICE secondary project showed that there had been a change in perspective. At the beginning, SPICE was visualized as a consulting team for the high schools that would consist of specialists in fashion careers. As the project progressed, it became obvious that SPICE personnel would have to become generalists in career education.

To accomplish this, the horizons of FIT were broadened to include all the elements included in a career education movement and not just those concerned with fashion careers.

In addition to a change in perspective, SPICE underwent another major change. In the beginning it was felt that the organizing of a career education center would be sufficient to implement career education in a school. As the project evolved, it became apparent that curriculum development and a guidance support system were essential to the functioning of the program. Thus, SPICE became involved in every aspect of the management of a high school and concluded that there were three major elements that constituted a career education plan for a New York City school. The three components were: 1. developing a career education resource center, 2. developing curriculum infusions concerned with career education concepts, and 3. developing a guidance support system. In addition, SPICE developed five guidelines of basic methodology in introducing and establishing career education in a school. An outline of this model is given in Appendix E. A more complete description of SPICE activities is on file in the SPICE office.

Two major problems became apparent in implementing career education at the secondary level. The first was concerned with motivating and involving the high school level teachers and coordinating the schedules of FIT and high school faculties. Second, the evaluator on a number of occasions pointed out the problems resulting from the paucity of quantifiable objectives and suggested a series of alternatives for generating and collecting information about the program (e.g., faculty and student behaviors). These suggestions were not implemented. Despite these problems, the director of the SPICE secondary program felt that considerable headway had been made in organizing a program to implement career education in the selected schools.

SUMMARY

This report is an evaluation study of the State Project to Implement Career Education (SPICE) from January, 1972 to June, 1973. Despite almost no major activity during the first six months of the project's life, by the end of the first year and a half a good deal of work had been accomplished. During the early period of the project it was decided to have two autonomous programs; elementary-junior high and secondary school. The data described in this report deal almost exclusively with the elementary-junior high component.

The personnel who were involved in the program were trained by attending workshops that were sponsored by SPICE. In general, interview and questionnaire data indicated that:

1. The workshops were informative and stimulated most teachers to want to know more about career education. Many teachers indicated that they began to examine their own knowledge and values about the world-of work. The teachers by and large felt that they developed professionally and broadened their viewpoints as a result of the workshops. Some appreciated the opportunity to gain a new purpose for teaching, as well as to sharpen their own concepts of unit planning and to further the development of their instructional skills.
2. Despite the very limited amount of time that SPICE personnel were able to spend with individual teachers, the interviews indicated that the teachers were positive in their attitudes toward their SPICE representative. They felt that coverage

was adequate, and that a feeling of enthusiasm toward the project was conveyed.

3. The majority of elementary school teachers interviewed who tried to implement career education in their classrooms reported success, interest, and enjoyment on the part of their students. They felt that career education was a good motivating factor and a very natural vehicle for teaching skills.
4. The two classroom projects undertaken, on the average, by each of the elementary school teachers typically required three or more hours of teacher preparation time, were concentrated in the areas of language arts and reading, were developed with little or no assistance from SPICE, would be used again, and were discussed or shared with other teachers. It must be noted that the probability is extremely small that these 105 career education classroom lessons would have been developed without SPICE intervention.
5. The three junior high schools differed in their approaches to implementing career education. In both Staten Island and the Bronx, the emphasis was on providing large-scale, elaborate activities related to career clusters. In Brooklyn, the classrooms were provided with materials for the cluster prior to the other activities and the students were exposed to films about different occupations before filling out student interest cards. Overall, the three junior high schools appeared to make some progress in their career

education programs. Given the initial work which was accomplished this year, the schools should be ready to initiate more organized and effective career education programs in the future.

6. The guidance counselors appear to have been positive in their attitudes toward the SPICE staff and their workshop experiences. They also felt that there was room for a good deal of improvement in teacher training and in the SPICE staff's ideas related to career counseling.
7. While the overall SPICE objectives seem to have been idealistic, quite tenable, and productive, the serious omission of careful orientation and planning with district administrators gave rise to confusion, antagonism, and a general feeling of a lack of competence and sophistication of the SPICE administrators in the eyes of the district personnel. However, there was probably a good deal of residual resistance to the SPICE program in the District Offices because of preconceived ideas about career education.
8. At this point in time, it is not clear if and how the time management system was used by the SPICE administrators to modify the behavior of SPICE personnel.

RECOMMENDATIONS

On the basis of the data gathered the following recommendations are made.

1. A district should not be included in the program without first obtaining a formal commitment from the district.
2. More articulation between the elementary and secondary SPICE components is required. Administration of both aspects should be merged, thus making possible greater programmatic continuity and better fiscal management.
3. Career education materials should be more fully developed and related to the school curriculum.
4. SPICE should help initiate and develop contacts between the districts and career people in the community.
5. A Resource Person/Teacher Trainer should be hired by the district and given the responsibility of integrating career education into the school curriculum.
6. At the junior high school level, the impact teams should work on defining goals for each cluster, provide students with adequate information about the clusters before setting up elaborate career programs, plan and implement follow-up activities and build in an evaluation procedure to determine what, if, and how much the students have gained from activities in each cluster.
7. School administrators should be included in the re-education process as well as consulted and included in every aspect in the implementation of the SPICE program. The administrators of SPICE

should work with the public school administrators in a manner similar to the work of the SPICE facilitators with the public school faculty.

8. The district office should be included both in the process of planning and training so that there can be greater integration of career education into the regular school curriculum. Thus the hesitancy of some of the teachers about designing a program that may or may not be accepted by their district offices may be overcome.

APPENDIX A

Workshop Objectives

SESSION I

CAREER EDUCATION: HOW IT GREW AND WHY IT'S HERE

Major Objectives:

1. Develop positive attitudes toward Career Education;
2. Identify the primary goals and objectives of Career Education; and
3. Emphasize Career Education as an approach to enhance, not replace, the traditional subject matter focus of curriculum.

Minor Objectives:

1. Trace and interpret the history of the Career Education movement;
2. Identify conditions in society which the schools have not adequately addressed;
3. Describe ways in which Career Education attempts to meet some needs of society;
4. Describe ways in which Career Education as an evolutionary development is designed to better motivate and meet the needs of all students;
5. Recognize the central philosophical and theoretical bases of Career Education;
6. Illustrate the differences between the concept of occupations and that of careers;
7. Recognize the differences and similarities between a Career Education curriculum and a traditional curriculum;
8. Characterize the various models of Career Education now in operation: school-based, employer-based, home-community based;
9. Discuss the basic components of Career Education as currently defined (include a review of curriculum efforts funded at the Federal, State, and local levels); and
10. Illustrate the applicability of Career Education to students, teachers, and the community.

SESSION II

SCHOOL AND COMMUNITY INVOLVEMENT IN CAREER EDUCATION

Major Objectives:

1. Discuss techniques and methods by which different school personnel can carry out their responsibilities in implementing Career Education;
2. Recognize the interrelationship of the roles the various school personnel will play in implementing Career Education;
3. Illustrate effective and productive forms of school-community exchange relationships;
4. Identify ways in which the school personnel can locate community resources to enhance their curriculum; and
5. Point out the possible contributions of parents, representatives of business and industry, and other community resources to a Career Education program.

Minor Objectives:

1. Illustrate that no one group of specialists (e.g., vocational educators, counselors, curriculum coordinators, or teachers) is capable of carrying out the multiple objectives of Career Education;
2. Identify the contributions to a Career Education program of the following: teachers, counselors, administrators, para-professionals or aides, etc.;
3. Emphasize the need for community resources (both human and material) in carrying out the objectives of Career Education; and
4. Clarify school personnel and community roles in carrying out Career Education.

SESSION III

THE COMPREHENSIVE CAREER EDUCATION MODEL AND ITS RELATIONS TO SPICE TEACHERS

Major Objectives:

1. Review the development of CCEM as it relates to teachers, including its basic theoretical reference: a matrix of themes, goals, and performance objectives for grades K-12 so that teachers can begin to become self-appraisers of their Career Education endeavors;
2. Describe the curriculum development procedures employed by teachers in creating CCEM products; and

3. Discuss the "infusion" strategy that could be used by teachers to embed CCEM into the existing curriculum.

Minor Objectives:

1. Describe the major program areas of CCEM: curriculum, staff development, guidance, placement, community involvement, and evaluation;
2. Illustrate how the various CCEM program areas help fulfill Career Education themes, goals, and objectives; and
3. Differentiate CCEM from present day educational approaches.

SESSION IV

CASE STUDIES: CAREER EDUCATION IN ACTION -- ATLANTA, GEORGIA, AND LOS ANGELES, CALIFORNIA

Major Objectives:

1. Review techniques and practices in Atlanta and Los Angeles in the areas of curriculum development and staff development; and
2. Review the installation procedures Atlanta and Los Angeles have designed thus far to ensure 100-percent-teacher-use of the Comprehensive Career Education program.

Minor Objectives:

1. Identify critical steps in the adoption and implementation of a new educational focus by two large, urban school systems;
2. Describe the Career Education-related community involvement strategies Atlanta and Los Angeles created and how they relate to the classroom teacher;
3. Compare and contrast specific areas of success and non-success in implementing Career Education experienced in the two school systems; and
4. Delineate specific ways in which CCEM was adopted to accommodate local characteristics in Los Angeles and Atlanta.

SESSION V

CAREER EDUCATION: RESOURCES AND TECHNIQUES FOR IMPLEMENTATION

Major Objectives:

1. Identify how special informational resources and techniques can help teachers meet the primary objectives of Career Education.

student self-awareness, career-awareness, and decision-awareness.

Minor Objectives:

1. Locate and discuss classifications for various informational resources and techniques appropriate to Career Education;
2. Understand that Career Education information delivery can and should be directed toward both the cognitive and affective domain; and
3. Emphasize that Career Education information delivery systems include human and non-human resources.

Teacher Questionnaire

SPICE Program

School: _____

Grade: _____

	Agree	Strongly Agree	Not Sure	Disagree	Strongly Disagree
1. The SPICE workshops are helpful in planning lessons.	5	4	3	2	1
2. There are adequate materials available at the workshops.	5	4	3	2	1
3. The SPICE staff is well-equipped to run workshops.	5	4	3	2	1
4. There should be more specific training for teachers at the workshops.	5	4	3	2	1
5. The teachers have an opportunity to discuss their problems with Career Ed. at the workshops.	5	4	3	2	1
6. The teachers get adequate feedback on their ideas and plans.	5	4	3	2	1
7. The workshops provide teachers with innovative ideas for lessons.	5	4	3	2	1
8. The workshops are held at a convenient time for teachers.	5	4	3	2	1
9. The workshops are well-organized and well-structured.	5	4	3	2	1
10. The workshops would be better if: (check as many as apply, and rank those checked in order of importance using 1 as most important, 2 as next important, etc.)					
a. Career people from the community came to run workshops.					
b. There were better attendance by all career ed. teachers.					
c. New materials were presented and discussed.					

TEACHER: _____

GRADE: _____ SCHOOL: _____ DISTRICT: _____

(If you need more space for answering any items use the back of this sheet.)

1. PROJECT (specify):

community helpers _____
 occupational models _____
 related crafts _____
 curriculum related occupations _____
 other (explain) _____

Main objectives (list briefly):

Date started _____

Date completed _____

Amount of classtime _____

2. ROLE MODELS USED (specify):

Family member _____
 School staff _____
 Neighborhood _____
 Other _____

3. ACTIVITIES INCLUDED (specify):

crafts _____ discussions _____
 exhibits _____ interviews _____
 lesson _____ A/V _____
 sales _____ presentation _____
 trip _____ role-playing _____
 textbook _____ workbook _____
 other (explain) _____

4. CURRICULUM AREAS INVOLVED (specify):

reading _____ language arts _____
 science _____ mathematics _____
 social studies _____

5. SPECIAL MATERIALS USED (specify):

6. TEACHER ASSESSMENT OF PROJECT

1. Amount of teacher preparation required:
 less than 1 hr. _____
 1 hr. _____
 3 hrs. _____
 5 hrs. _____
 more _____

2. Success of project with students:

little _____ bel. aver. _____
 aver. _____ above aver. _____
 excel. _____

3. Did project meet its objectives?

little _____ bel. aver. _____
 aver. _____ above aver. _____
 excel. _____

4. Percent of class involved:

10% _____ 25% _____
 50% _____ 75% _____
 100% _____

5. Was S.P.I.C.E. of any help (personnel, resources, financial, etc.)?

a. directly? _____ b. indirectly? _____
 If "yes", how? _____

7.1. Would you use this project again? _____

2. If "yes", with what modifications, if any? _____

8. 1. Have you shared any of this project with your colleagues? _____
 2. If "yes", how many? _____
 3. In what ways? _____

APPENDIX D

TIME MANAGEMENT FORMS

The weekly time usage report is a graphic summary of the percentage of time that SPICE personnel spent in the 16 possible activities (A-P).

The diagram resulted from the following multi-step procedure:

1. For each individual activity, the time engaged in that activity was totaled for all SPICE personnel for the week.
2. The total time spent each week in all 16 activities is calculated for all personnel. This figure appears on the table as "total hours reported."
3. The percentage of time that all personnel are engaged in each activity is calculated by dividing the total number of hours reported by all personnel for a particular activity by the "total hours reported."

The numbers appearing at the top of each bar of the graph are the total number of occurrences of that activity for all personnel for that week. The numbers appearing at the bottom of each bar are the percentages of time spent in each activity for all personnel for that week.

"N's" are defined as the total number of SPICE personnel whose weekly logs are included in the graphic calculations.

In calculating "total hours available," it is assumed that each person has 35 hours a week available for work. Thus, "total hours available" is defined as the total number of SPICE personnel reporting multiplied by 35, or $35 \times N$.

"Reported gain/loss" is the difference between "total hours available" and "total hours reported."

S.P.I.C.E.

State Project to Implement Career Education

Daily Process Content

Date:

Staff Member:

1st hr.

5th hr.

2nd hr.

6th hr.

3rd hr.

7th hr.

4th hr.

8th hr.

Daily Log TallyActivities

A. Individual teacher, guidance or librarian conferences

B. Group meetings with teachers, guidance counselors or librarians

C. Collection, preparation and evaluation of materials

D. Classroom observations

E. Informal reporting

F. Clerical (time sheets, budgets logs, typing, newsletter telephoning, administrative and organizational duties, etc)

G. Preparation of reports

H. Teaching classes (demonstration)

I. Travel (time-specify)

J. Evaluation of teachers

K. Outside agency contact

L. Conferences with resource personnel

M. Meetings with administrators (Principals, etc.)

N. Workshops

O. Staff meetings or individual conferences with staff members

P. Other (specify)

CASELOAD

TEACHERS

SCHOOLS

Weekly Log Summary

S.P.I.C.E. Personnel

Week of _____

A. Individual teacher, guidance or
librarian conferencesB. Group meetings with teachers,
guidance counselors or
librariansC. Collection, preparation and
evaluation of materials

D. Classroom observations

E. Informal reporting

F. Clerical (time sheets, budgets, logs,
typing, newsletter, telephoning,
administrative and organizational
duties (etc.))

G. Preparation of reports

H. Teaching classes (demonstration)

I. Travel (time-specify)

J. Evaluation of teachers

K. Outside agency contact

L. Conferences with resource
personnelM. Meetings with administrators
(Principals, etc.)

N. Workshops

O. Staff meetings or individual
conferences with staff membersP. Other
(specify)

	Monday		Tuesday		Wednesday		Thursday		Friday		Total	
	N	T	N	T	N	T	N	T	N	T	N	T
A.												
B.												
C.												
D.												
E.												
F.												
G.												
H.												
I.												
J.												
K.												
L.												
M.												
N.												
O.												
P.												

COMMENTS: (Use reverse side for additional comments.)

S.P.I.T.C.E.

Institute for Research and Development
in Occupational Education

MONTHLY TIME USAGE REPORT

1972-73

Month reported: March 1973 (weeks of 3/5, 3/12, 3/19 & 3/26)

Positions reported: SPICE Personnel

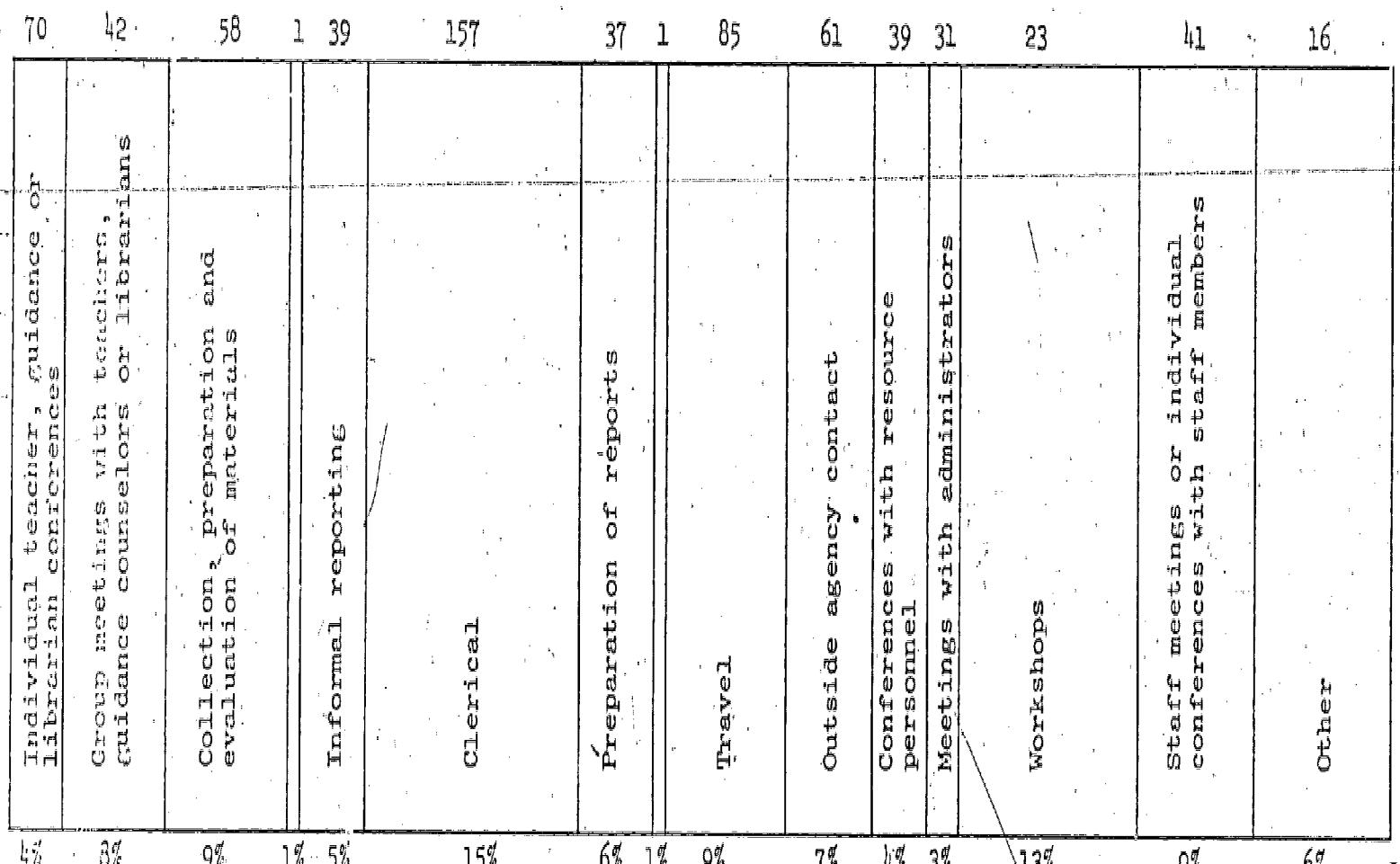
MONTHLY TIME USAGE REPORT

1972-73

(87)

Month reported: April 1973 (weeks of 4/2, 4/9, 4/23 & 4/30)*

Positions reported: SPICE Personnel



Classroom Observations-->

Teaching classes-->

N's 19

Total hours available: 626.50

Total hours reported: 657.75

Reported Gain/Loss: +31.25

*Week of 4/16 was vacation

MONTHLY TIME USAGE REPORT

S.P.I.C.E. Evaluation
 Institute for Research and Development
 in Occupational Education

1972-73

Month reported: May 1973 (weeks of 5/7, 5/14 & 5/21)

Positions reported: SPICE Personnel

Individual teacher, guidance or librarian conferences	57	23	72	532	188	27	61	39	27	20	7	56	10
Group meetings with teachers, guidance counselors or librarians	6%	6%	12%	1% 3%	18%	3%	13%	5%	6%	2%	7%	7%	11%
Collection, preparation and evaluation of materials													
Informal reporting													
Clerical													
Preparation of reports													
Travel													
Outside agency contact													
Conferences with resource personnel													
Meetings with administrators													
Workshops													
Staff meetings or individual conferences with staff members													
Other													

Classroom
Observations-->

N's 13

Total hours available: 455

Total hours reported: 482.75

Reported Gain/Loss: +27.75

BASIC METHODOLOGY IN INTRODUCING AND ESTABLISHING
CAREER EDUCATION IN A SCHOOL

1. Create an investigative task force to determine if your school is ready to implement career education. To determine this the following questions should be answered concerning your present involvement in career education:
 - A. What does career education mean in your school to:
 1. Administrators?
 2. Faculty?
 3. Students
 4. Parents?
 - B. How do these concepts relate with what you are now doing in your school?
 - C. Is your school prepared to make a commitment to implement career education?
2. Form a planning and development leadership committee in your school. Each of the committee members should develop the goals and objectives of career education as it relates to all students attending your school. Committee membership should comprise administrators, faculty, students, parents, and community organizations. The committee should answer the following questions:
 - A. How shall the leadership committee function--
 1. What will be the organization of the committee?
 2. What will be the frequency and agenda of committee meetings?
 3. How shall the committee establish lines of communication with the entire school community?
 4. What leadership authority will the committee hold?
 - B. What does career education mean in your school to:
 1. Administrators?
 2. Faculty?
 3. Students?
 4. Parents?
 - C. How do these concepts relate with what you are now doing in your school.

3. Survey the resources of your school community in order to plan for appropriate goals and modes of action:
 - A. Complete a survey of faculty and parents which indicates their career experiences.
 - B. Survey career-oriented lesson plans being used in your current curriculum.
 - C. Survey the guidance and job counseling support systems in your school and community.
 - D. Survey the physical plant of your school (for possible skills experience lessons which need space and equipment).
 - E. Survey community resources: types of occupations existing within your community, potential speakers who can talk about these occupations, service agencies and their resources, etc.
 - F. Determine manpower needs within your community.
4. Develop a career education plan:
 - A. Evaluate the mechanics of implementing a viable career education plan in your school:
 1. Develop career occupation clusters.
 2. Develop curriculum infusions of career education concepts into all lesson plans which relate to your career clusters.
 3. Develop a curriculum for a "world of work" course.
 4. Organize career fairs and ongoing workshops in career development.
 5. Establish a resource center for career education information and materials. Use Comprehensive Career Guidance System as a model.
 6. Organize field trips to "on-the-job" locations.
 7. Hire a full-time career education coordinator to work in the school.
 5. Evaluate and improve upon the effectiveness of the program:
Communicate with students, teachers, administrators, parents and the community at large regarding the progress and effects of career education within your school and community.

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